

PERSONNEL - \$5,563,757

A total of \$5,563,757 is requested to cover personnel cost over the four-year project period. As the Lead Agency, Chaffey College will hire the core leadership and support staff that will oversee the proposed program and coordinate services with each participating consortium college. This core staff includes the following: Project Manager 100% FTE years 1-3 / 50% FTE year 4; Project Coordinator 100% FTE years 1-3; Lead Data Manager 100% FTE years 1-4; Accounting Tech 100% FTE years 1-3 / 50% FTE year 4; Admin Assistant 100% FTE years 1-3 / 50% FTE year 4; and a Faculty Engineering Tech 50% FTE years 1-3. Year four of the project focuses specifically on assessment related activities (no direct service to students will be offered). As a result, staffing was scaled back in year four accordingly.

In addition to this core staff, each consortium member will have a dedicated Site Coordinator responsible for overseeing the implementation of the IERTC within their college. This staff member will coordinate all efforts with the Project Manager and Project Coordinator. Locations will also have a supportive Site Data Manager who will be responsible for maintaining program and participant data at the college level and will work closely with the Expert Review Team and ICF, the projects third-party evaluator. Additional support staff (i.e., Employment Placement Coordinator, Automation Systems Tech, etc.) is included at the consortium site level based on specific needs at each site. Full time status of all personnel at the consortium site level varies by member based on need and number of students that will be served.

PERSONNEL COST		
Member	Description	Cost
Chaffey	<ul style="list-style-type: none"> Project Manager @100% FTE yrs 1-3 / 50% FTE yr 4. Position will be a Professional Expert, salary steady yrs 1-4 @ \$98,400 per/yr. No COLA/Step. Total @ \$344,400. Project Coordinator @100% FTE yrs 1-3. Position will be a Professional Expert, salary steady yrs 1-4 @ \$75,000 per/yr. No COLA/Step. Total @ \$225,000 Lead Data Manager @ 100% FTE yrs 1-3 + 7.5 % COLA-Step/yr. Total @\$299,937 Accounting Tech II @ 100% FTE yrs1-3 / 50% FTE yr4 + 7.5% COLA-Step/yr. Total @ \$139,496. Admin Assistant II @ 100% FTE yrs 1-3 +7.5% COLA-Step/yr. Total @ \$132,353 Faculty Engineering Tech 50% FTE yrs 1-3 +7.5% COLA-Step/yr. Total @ \$138,496 	\$ 1,279,682
Norco	<ul style="list-style-type: none"> Site Coordinator @ 100% FTE - includes STEP increases and a 2% COLA in yrs 2 - 3 and 50% in yr 4. Total @ \$253,721 Site Data Manager @ 25% FTE - salary based on Grade P of the management salary schedule, includes STEP increases and a 2% COLA in yrs 2 - 4. Total @ 63,359 	\$ 700,369

	<ul style="list-style-type: none"> Automation Systems Technician @ 100% FTE non-tenure track. Includes STEP increases and a 2% COLA in yrs 2 - 4. Total @ 271,615 Employment Placement Coordinator @ 25% FTE @ \$42,025 Grants Admin Assistant - @ 50% FTE - salary based on Grade 1 of the classified salary schedule, includes STEP increases and a 2% COLA in yrs 2 and 3. Total @ \$69,649 	
Barstow	<ul style="list-style-type: none"> Site Coordinator @ 100% FTE yrs1-3 / 50% FTE yr 4. + 2.5% COLA annually. Total @ \$343,337 Site Data Manager @ 50% FTE yrs1-3 / 25% FTE yr 4. + 2.5% COLA annually. Total @ \$65,053 Full time Faculty @ 100% FTE yrs 1-3 + 2.5% COLA annually. Total @ \$230,672 Adjunct Faculty @ \$48/hr x 2,000 contact hours. Total @ \$9,800 Professional Development Stipends @ \$43,100 yr 2 and \$43,518 yr 3 	\$ 735,520
College of the Desert	<ul style="list-style-type: none"> Site Coordinator @ 100% FTE- includes STEP increases and a 2% COLA in yrs 2 - 3 and 50% in yr 4. Total @ \$268,045 Site Data Manager @ 10% FTE - salary yrs 1-3 and 25% salary yr 4 based on Grade 15 of the classified salary schedule, includes 4%STEP increases and a 2% COLA in yrs 2 - 4. Total @ \$35,615 HVAC Technician faculty 50% FTE. Includes STEP increases and a 2% COLA in yrs 2 - 4. Total @ \$109,379 CTE Transitions Specialist @ 50% FTE of starting annual salary \$66,070 yr 1, yr 2 & 3 Step increase and 2% COLA Project Secretary @ 100% FTE - includes STEP increases and a 2% COLA in yrs 2 and 3. Total @ \$105,143 Faculty stipends to coordinate instructional ties to internships, teach Work Experience classes, and promote service learning activities designed to facilitate TAA job placement @ \$16,000 Student tutors to be paid on an hourly basis to meet the needs of students. Estimated hours needed are 1,200 hours per yr at \$12 per hour @ \$43,200 	\$ 668,022
Mt. San Jacinto	<ul style="list-style-type: none"> Site Coordinator-Professional Expert, NTE 1200 hrs @\$50.00/hr. Total @ \$210,000 Site Data Manager (Admin Associate),25% of current AA III to the Dean of CTE, includes STEP increases in 2-4. Total @ \$70,485 Categorically funded faculty, Level 13, step 5 full-time non-tenure track- 1 FTE. Includes STEP increases in yr 2-3. Total @ \$212,522 Outreach Specialist Coordinator, Level 24, step 2, 0.5FTE, Total @ \$79,106 Faculty stipends \$40/hr NTE 100 hrs x 2 positions to coordinate instructional components Total @ \$24,000 Student tutors to be paid on an hourly basis to meet the needs of students. Estimated hours needed are 250 hours per yr at \$10 per hour x 2 positions Total @ \$15,000 	\$ 611,113
Victor Valley	<ul style="list-style-type: none"> Site Coordinator – Provides 400 hours per yr of special assignment time at \$55 per hour (adjunct contract rate) for hiring faculty to develop curriculum, lesson plans, supporting documentation and obtain accreditation for new NIMS machining certification program (Yr Four facilitates anticipated grant reporting at 100 hours) . Total @ \$71,500 Site Data Manager – Provides 160 hours per yr at \$55 per hour (adjunct contract rate) of paid staff development and training time for faculty in the implementation new NIMS machining certification program. Total @ \$6,000 Professional Development Stipends – Provides 100 hours/yr of clerical support to process NIMS accreditation forms and reports. Total @ \$26,400 Clerical Support – Provides 100 hours/yr of clerical support per yr to process required grant reports. Total @ \$4,500 	\$ 108,400
SB Valley	<ul style="list-style-type: none"> Site Coordinator @ 100% FTE @ \$349,395 over 4 yrs Site Data Manager (Admin Assistant) @ 100% FTE @ \$202,982 over 4 yrs Professional Experts - Professional experts will be employed on an as-needed basis to deliver not-for-credit instruction at the Regional Training Center and at the college. It is expected that Professional Experts will deliver 928 hours of instruction @ \$60,320 	\$ 752,697

	<ul style="list-style-type: none"> • Adjunct Faculty (for curriculum/course develop/delivery). Categorical funded full-time non-tenure track faculty position, 2.0 FTE @ \$140,000 	
Crafton Hills	<ul style="list-style-type: none"> • Site Coordinator - Professional Expert, NTE 20 hrs. @ \$65.00/hr. Total @ \$21,550 • Faculty stipends, \$50/hr. NTE 100 hrs x 2 positions. Total @ \$9,000 	\$ 30,550
Riverside CC	<ul style="list-style-type: none"> • Site Coordinator – \$101,364 starting annual salary yr 1, yr 2 Step increase and 2% COLA \$108,146, .2 FTE for yrs 1-4. Total @ \$86,468 • Site Coordinator – \$111,200 starting annual salary yr 1, yr 2 & 3 a 2% COLA increase, .2 FTE for yrs 1-4. Total @ \$91,666 • Faculty stipends - \$25,000 yr 1 & \$15,000 yr 2 & \$10,000 yr 3 for cyber security. Total @ \$50,000 • Adjunct faculty time for cyber security – 54 hours (3 units) x 1 section x 2 semesters x \$73.20 lecture rate. Total @ \$16,396 • Adjunct faculty time for quality assurance - 54 hours (3 units) x 2 sections a semester x 2 semesters x \$73.20 lecture rate. Total @ \$32,792 • • TriTech SBDC Director – \$31,280 over 3 yrs. Total @ \$31,280 • TriTech SBDC Business Associate – 20 hrs/week at \$19/hr. Total @ \$54,720 • TriTech SBDC Associate Director / Business Development Administrative Assistant – \$30,000 for 3 yrs. Total @ \$30,000 • Tutors (\$10/hour) x 32 weeks x 20 hours/week for yrs 2 and 3. Total @ \$25,600 • Administrative Assistant I/Site Data Manager 50% FTE - \$35,688 starting annual salary with STEP increase @ 5% and COLA increase @ 2% after yr 1. 50% yrs 1 -3. Total @ \$57,682 	\$ 476,604
MiraCosta	<ul style="list-style-type: none"> • Site Coordinator @ 10% - @ \$40,612 • Assistant Site Coordinator @ 10% - @ \$26,197 • Grants Assistant/Site Data Manager @ 10% - salary based on the classified salary schedule. @ \$26,490 	\$ 93,300
CSUSB	<ul style="list-style-type: none"> • Site Coordinator (Dr. Stull). The position will oversee all aspects of the program including operation, milestone tracking, budgeting and reporting. This position will also teach specific modules of the entrepreneurial boot camp course. @ \$28,500 • Site Asst. Coordinator (Dr. Pryor) - Program Coordinator & Instructor. The position will assist in program coordination and will teach specific modules of the entrepreneurial boot camp course. @ \$25,500 • Adjunct faculty, as necessary for instruction of various modules in the entrepreneurial boot camp course. @ \$18,000 	\$ 72,000
UC Riverside	<ul style="list-style-type: none"> • Site Coordinator - Professional Expert, NTE 100 hrs. @ \$100.00/hr. The position will provide administrative leadership and institutional coordination for service delivery to participants, coordinate regional planning and collaboration with partner organizations, and provide required data and reports. @ \$32,500 • Faculty stipends, \$50/hr. NTE 100 hrs x 2 positions to coordinate instructional activities (curriculum development, serve as faculty advisors, and promote service learning activities). @ \$3,000 	\$ 35,500
Category Total		\$ 5,563,757

FRINGE BENEFITS - \$2,349,253

Fringe benefits have been included at a total request of \$2,349,253. Benefits factor STRS retirement, PERS retirement, FICA, Medicare, COLA, H&W, and annual step increase, as applicable.

FRINGE BENEFITS POST		
Member	Description	Cost
Chaffey	<ul style="list-style-type: none"> • Project Manager @ \$39,200 yr 1; \$39,200 yr 2; \$39,200 yr3 and \$19,600 yr 4 • Project Coordinator @ \$34,228 x 3 yrs • Lead Data Manager @\$32,562yr1; \$35,004yr2; \$37,629yr3; and \$40,451yr4 	\$ 632,045

	<ul style="list-style-type: none"> Accounting Tech II @ \$26,094yr1, \$28,051yr2; \$30004yr3; and \$16,209 yr4 Admin Assistant II @ \$27,091 yr1; \$29,123 yr2; \$31,307 yr3 Faculty Engineering Tech @ \$18,103 yr1; \$19,461 yr2; and \$20,921 yr3 	
Norco	<ul style="list-style-type: none"> Site Coordinator @ 100% FTE - 21.517% benefit rate and H&W with 5% increase each yr. Total @ \$157,371 	\$ 367,071
	<ul style="list-style-type: none"> Site Data Manager @ 25% FTE - 21.517% benefit rate NO H&W. Total @ \$15,203 Automation Systems Technician @ 100% FTE –12.15% benefit rate and H&W with 5% increase each yr. Total @ \$116,729 Employment Placement Coordinator @ 25% FTE - 21.517% benefit rate and H&W with 5% increase each yr. Total @ \$22,659 Grants Admin Assistant - @ 50% FTE - 21.517% benefit rate and H&W 50% with 5% increase. Total @ \$55,109 	
Barstow	<ul style="list-style-type: none"> Site Coordinator @ \$164,802, includes 2.5% COLA/yr Site Data Manager @ \$27,322, includes 2.5% COLA/yr Faculty @ \$110,723, includes 2.5% COLA/yr Adjunct Faculty @ \$2,952 	\$ 305,799
College of Desert	<ul style="list-style-type: none"> Site Coordinator - @ 21.517% benefit rate and H&W @ \$15,883 starting rate with 5% increase each yr. Total @ \$128,442 Site Data Manager - @ 21.517% benefit rate and H&W @ \$15,883 starting rate with 5% increase each yr. Total @ \$3,316 HVAC Technician - 12.15% benefit rate and H&W @ \$15,883 starting rate with 5% increase each yr. Total @ \$98,724 CTE Transitions Specialist - @ 21.517% benefit rate and H&W @ \$25,000 starting rate with 5% increase each yr. Total \$49,146 Project Secretary @ 21.517% benefits rate and H&W @ \$15,883 starting rate with 5% increase. Total @ \$85,718 Faculty stipends 12.15% benefit rate no H&W @ \$1,824 Student tutors to be paid on an hourly basis to meet the needs of students. Estimated hours needed are 1,200 hours per yr at \$12 per hour @ \$1,617 	\$ 368,786
Mt. San Jacinto	<ul style="list-style-type: none"> Site Coordinator - Pr NTE 1200 hrs. 1-3 yr and 600 hrs. yr 4 w/ fixed costs. Total @ \$26,250 Site Data Manager (Admin Asst.), 25% of existing AAIII fixed cost and H&W with annual increase. Total @ \$23,754 Categorically funded Engineering Technologies faculty, full-time non-tenure track, 1 FTE w/ fixed costs and H&W w/ increase each yr. Total @ \$55,391 Outreach Specialist Coordinator fixed cost and H&W w/annual increase each yr. Total @ \$30,769 Faculty stipends with fixed costs. Total @ \$3,735 Student tutors to be paid on an hourly basis to meet the needs of students. Estimated hours needed are 250 hours per yr at \$10 per hour. Total @ \$36 	\$ 140,264
Victor Valley	<ul style="list-style-type: none"> Site Coordinator – @ 30% of Salary. Total @ \$21,450 Site Data Manager – @ 30% of Salary. Total @ \$1,800 Professional Development Stipends – @ 30% of Salary. Total @ \$7,920 Clerical Support – @ 30% of Salary. Total @ \$1,350 	\$ 32,520
SB Valley	<ul style="list-style-type: none"> Human Resources Department calculates fringe benefits for full time employees variously depending on the employee's classification. Staff benefits include FICA, Medicare, Workers Compensation, health insurance, and retirement. Total \$285,682 	\$ 285,682
Crafton Hills	<ul style="list-style-type: none"> Fringe scheduled at 30% of salaries. Total @ \$9,165 	\$ 9,165
Riverside CC	<ul style="list-style-type: none"> Site Coordinator (Cyber Security) – 12.15% benefit rate H&W 20% @ \$12,968 with 5% increase each yr. Total @ \$21,685 Site Coordinator (Quality Assurance) –10.59% benefit rate and H&W @ \$23,724, starting rate with 5% increase each yr. Total @ \$30,156 Faculty stipends – 12.15% benefit rate no H&W. Total @ \$6,075 Adjunct faculty for cyber security – 12.15% benefit rate no H&W. Total @ \$1,992 	\$ 145,708

	<ul style="list-style-type: none"> • Adjunct faculty for quality assurance –12.15% benefit rate no H&W. Total @ \$3,984 • Benefits of Total Personnel with TriTech – 25% total. Total @ \$29,000 • Tutors (\$10/hour) - 3.9% benefit rate no H&W. Total @ \$998 • Administrative Assistant/Site Data Manager - 21.517% benefit rate and H&W @ 51,817\$25,000 starting rate with 5% increase each yr. Total @ \$ 	
MiraCosta	<ul style="list-style-type: none"> • Site Coordinator @ 10% - @ \$8,361 • Assistant Site Coordinator @ 10% - @ \$9,126 • Grants Assistant/Site Data Manager @ 10% - @ \$9,132 	\$ 26,618
CSUSB	<ul style="list-style-type: none"> • Site Coordinator (Dr. Stull). @ 40% - \$11,400 • Site Asst. Coordinator (Dr. Pryor) - @ 40% - \$10,200 • Adjunct faculty - @ 40% - \$10,260 	\$ 31,860
UC Riverside	<ul style="list-style-type: none"> • Faculty stipends @ 12.15% benefit rate no H&W - @ \$3,735 	\$ 3,735
Category Total		\$ 2,349,253

TRAVEL - \$152,387

Travel and conference amounts are scheduled at a total of **\$152,387**. These funds are to be used to attend scheduled regional trainings, meetings, events and support required travel expenses and registration fees for conferences.

Member	Description	Cost
Chaffey	<ul style="list-style-type: none"> • Local Mileage for all program related activities @ \$1,500 ea/yr x 3 yrs • Annual Engineering Conference @ \$1,250 ea/yr x 3 yrs 	\$ 8,250
Norco	<ul style="list-style-type: none"> • Local Mileage for all program related activities @ \$500 ea/yr x 3 yrs • NSF Conference @ \$1,250 ea/yr x 3 yrs 	\$ 5,250
Barstow	<ul style="list-style-type: none"> • Local Mileage for all program related activities @ \$2,250 yr1; \$2,363 yr2 and \$3,224 yr3 	\$ 7,837
College of Desert	<ul style="list-style-type: none"> • Local Mileage for all program related activities @ \$2,000 ea/yr x 3 yrs • Annual HVAC Conference @ \$4,400 yr1; \$4,500 yr2; and \$4,600 yr3 	\$ 19,500
Mt. San Jacinto	<ul style="list-style-type: none"> • Local Mileage for all program related activities @ \$2,000 ea/yr x 3 yrs • Professional Development Conference @ \$1,250 ea/yr x 3 yrs 	\$ 9,750
Victor Valley	<ul style="list-style-type: none"> • Local Mileage for all program related activities @ \$2,500 ea/yr x 3 yrs • Industry Training Conference @ \$2,250 ea/yr x 3 yrs 	\$ 15,000
SB Valley	<ul style="list-style-type: none"> • Local Mileage for all program related activities @ \$1,500 yr1; \$1,800 yr2 and \$2,500 yr3 	\$ 5,800
Crafton Hills	<ul style="list-style-type: none"> • Local Mileage for all program related activities @ \$1,000 ea/yr x 3 yrs • Annual AM Conference @ \$1,500 ea/yr x 3 yrs 	\$ 7,500
Riverside CC	<ul style="list-style-type: none"> • Local Mileage for all program related activities @ \$10,000 ea/yr x 3 yrs • Annual Industry Conference @ \$7,000 ea/yr x 3 yrs 	\$ 51,000
MiraCosta	<ul style="list-style-type: none"> • Local Mileage for all program related activities @ \$500 ea/yr x 3 yrs 	\$ 1,500
CSUSB	<ul style="list-style-type: none"> • No resources requested 	\$ 0
UC Riverside	<ul style="list-style-type: none"> • Local Mileage for all program related activities @ \$2,000 ea/yr x 3 yrs • Conference @ \$5,000 ea/yr x 3 yrs 	\$ 21,000
Category Total		\$ 152,387

EQUIPMENT - \$1,514,575

Equipment amounts are scheduled at \$1,514,575 in year one of the project. Equipment funds will be used to support proposed IERTC SEBI Center and consortium college direct service activities. All requests to purchase equipment will need to be approved by the IERTC Project Manager and TAA Grant Officer prior to purchasing.

EQUIPMENT COST		
Member	Description	Cost
Chaffey	<ul style="list-style-type: none"> IERTC SEBI Center Equipment – Klein hands-on Lab @ \$621,562 IERTC SEBI Center Equipment – Classroom Equipment @ \$155,766 Mobile Lab Equipment - @ \$122,706 Auto CAD @ \$15,000 Solid Works @ \$15,000 	\$ 930,034
Norco	<ul style="list-style-type: none"> Instructional Office Copy Machine @ \$12,000 Festo and Intelligrated training Lab System @ \$57,500 	\$ 69,500
Barstow	<ul style="list-style-type: none"> Welding Station @ \$10,000 	\$ 10,000
College of Desert	<ul style="list-style-type: none"> Hampden H-MZBM-AL Multi-Zone Building Energy system @ \$53,547 	\$ 53,547
Mt. San Jacinto	<ul style="list-style-type: none"> Specialized Tech/Lab Equipment (3D Printers, Computer w/software) @ \$75,000 	\$ 75,000
Victor Valley	<ul style="list-style-type: none"> CNC min-Mill @ \$35,000 Laser Drill press @ \$2,000/ea x2 CNC Control Simulators @ \$2,000/ea x 3 Vertical Knee Mill @ \$10,000 Welding Ventilation Hood @ \$90,000 	\$ 145,000
SB Valley	<ul style="list-style-type: none"> Ductless Work Stations @ \$6,750 ea x 12 	\$ 81,000
Crafton Hills	<ul style="list-style-type: none"> No resources requested 	\$ 0
Riverside CC	<ul style="list-style-type: none"> Podium with teaching computer/installation @ \$18,000 Sigmanet Net Lab @ \$132,494 	\$ 150,494
MiraCosta	<ul style="list-style-type: none"> No resources requested 	\$ 0
CSUSB	<ul style="list-style-type: none"> No resources requested 	\$ 0
UC Riverside	<ul style="list-style-type: none"> No resources requested 	\$ 0
Category Total		\$ 1,514,575

SUPPLIES - \$647,101

\$647,101 is requested to support instructional (direct) and non-instructional (office/program) supplies. Expenditures will include cost for training materials, website development/maintenance and other activities as defined throughout the program narrative. Student portfolios, which document student goals and needs, will be created and cost for these essential benchmark tools have been included.

SUPPLIES COST		
Member	Description	Cost
Chaffey	<ul style="list-style-type: none"> Dell precision T1700 SFF Workstations x14 @ \$1,571/ea Dual Computer Workstations x14 @ \$714/ea Wizard Presentation Podium @ \$450 Smart Board @ \$3,000 	\$ 74,950

	<ul style="list-style-type: none"> • Replicator 3D Printer \$3,000 • 3D Printer Supplies @ \$5,000 • Instructional Supplies @ \$2,500 ea/yr x 3 yrs • Non-instructional supplies @ \$1,500 ea/yr x 3 yrs • Copy/printing of materials @ \$3,500 ea/yr x 3 yrs • Misc. outreach supplies @ \$3,000 ea/yr x 3 yrs 	-
Norco	<ul style="list-style-type: none"> • Computer/Laptop x 4 @ \$2,800 ea • Instructional supplies @ \$5,600 ea/yr x 3 yrs • Non-instructional supplies @ \$30,800 • Copying/ printing @ \$3,500 ea/yr x 3 yrs • Communications @ \$5,480 yr1; \$5,280 yr2 and \$5,280 yr3 • Misc. outreach supplies, flyers, etc. @ \$250 yr1; \$500 yr2 and \$250 yr3 	\$ 86,340
Barstow	<ul style="list-style-type: none"> • Instructional supplies @ \$12,300 yr2 and \$20,450 yr3 • Non-instructional supplies @ \$13,000 yr2 and \$21,500 yr3 • Copying /printing @ \$1,000 yr1; \$1,050 yr2 and \$788 yr3 • Shipping @ \$6,000 yr1; \$8,850 yr2 and \$2,288 yr3 	\$ 95,976
College of Desert	<ul style="list-style-type: none"> • Computer/laptop x 4 @ \$700 ea • Instructional supplies @ \$5,000 yr1; \$7,000 yr2 and \$7,000 yr3 • Copying/printing @ \$1,500 yr1; \$3,500 yr2; and \$3,500 yr 3 • Misc. outreach supplies, flyers, etc. @ \$500 yr1; \$2,000 yr2 and \$500 yr3 • Digital Media tablets @ \$3,400 	\$ 36,700
Mt. San Jacinto	<ul style="list-style-type: none"> • Instructional supplies @ \$10,000 yr1; \$8,000 yr2 and \$8,000 yr3 • Non-instructional supplies @ \$10,000 yr 1 • Copying/printing @ \$3,500 ea/yr x 3 yrs • Misc. outreach supplies, flyers, etc. @ \$500 yr1; \$1,000 yr2 and \$500 yr 3 	\$ 48,500
Victor Valley	<ul style="list-style-type: none"> • Online NIMS Curriculum @ \$5,000 ea/yr x 3 yrs • Tooling for CNC Machines @ \$3,200 yr1 	\$ 18,200
SB Valley	<ul style="list-style-type: none"> • Instructional supplies @ \$14,000 yr2 and \$14,000 yr3 • Instructional supplies – class workbooks @ \$5,025 yr2 and \$5,025 yr3 	\$ 38,050
Crafton Hills	<ul style="list-style-type: none"> • Copying/printing @ \$300 ea/yr x 3 yrs • Misc. outreach supplies, flyers, etc. @ \$629 yr1; \$628 yr2 and \$628 yr3 	\$ 2,785
Riverside CC	<ul style="list-style-type: none"> • Instructional and non-instructional supplies @ \$2,500 ea/yr x 3 yrs • Computers – student work stations (27 @ \$1,600/ea) – Cybersecurity • Computers – student work stations (27 @ \$1,600/ea) – Quality Assurance • Screens electric w/installation • Furniture for lab 	\$ 138,000
MiraCosta	<ul style="list-style-type: none"> • Instructional supplies @ \$14,500 yr1; \$25,400 yr2 and \$26,000 yr3 • Non-instructional supplies @ \$1,000 ea/yr x 3 yrs • Copying/printing @ \$1,500 yr1; \$2,500 yr2 and \$3,500 yr3 	\$ 75,000
CSUSB	<ul style="list-style-type: none"> • Instructional supplies @ \$5,000 ea/yr x 3 yrs • Non-instructional supplies @ \$2,400 ea/yr x 3 yrs • Misc. outreach supplies @ \$1,000 yr1; \$500 yr2 and \$500 yr3 	\$ 24,200
UC Riverside	<ul style="list-style-type: none"> • Copying/printing @ \$1,500 ea/yr x 3 yrs • Misc. outreach supplies @ \$ 1,000 yr1; \$500 yr2 and \$ 1,000 yr3 	\$ 7,000
Category Total		\$ 647,101

CONTRACTUAL - \$3,619,712

Cost to support Contractual related expenses are scheduled at \$3,619,712. These resources will be used to support services related to contracting with: local WIBs to provide TAA specific resources; 3rd party independent evaluator ICF to conduct required rigorous 4-year project assessment; contractors who

will perform required renovations at proposed IERTC SEBI Center; consultants to assist with employment placement and the development of courses, articulation agreements and collaboration.

CONTRACTUAL COST		
Member	Description	Cost
Chaffey	<ul style="list-style-type: none"> • SB County WIB @ \$11,666 yr/1 and \$11,667 ea/yr for yrs 2-3 • Riverside County WIB @ \$11,666 yr/1 and \$11,667 ea/yr for yrs 2-3 • 3rd party evaluator ICF @ \$215,172 yr1; \$204,820 yr2; \$232,306 yr3; and \$317,914 yr4. Total services estimated at 6.5% of total funding. Amount not included in indirect cost request • IERTC SEBI Center renovations (contractors) @ \$2,250,000 in year one for improvements to building; i.e., retrofitting of building's internal systems and utilities, communications to accommodate training courses and equipment. Capital improvement resources @ 15% of total funding request. 	\$ 3,290,212
Norco	<ul style="list-style-type: none"> • Resources for misc. consultants to assist with course development, project implementation and job placement related activities @ \$20,000 ea/yr x 3 yrs 	\$ 60,000
Barstow	<ul style="list-style-type: none"> • No resources requested 	\$
College of Desert	<ul style="list-style-type: none"> • Resources for misc. consultants to assist with course development, project implementation and job placement related activities @ \$5,000 yr1; \$12,000 yr2; and \$15,000 yr3 • Employment Placement Coordinator @ \$32,500 ea/yr x 3 yrs 	\$ 194,500
Mt. San Jacinto	<ul style="list-style-type: none"> • No resources requested 	\$ 0
Victor Valley	<ul style="list-style-type: none"> • No resources requested 	\$ 0
SB Valley	<ul style="list-style-type: none"> • No resources requested 	\$ 0
Crafton Hills	<ul style="list-style-type: none"> • No resources requested 	\$ 0
Riverside CC	<ul style="list-style-type: none"> • No resources requested 	\$ 0
MiraCosta	<ul style="list-style-type: none"> • Contractual resources to create new course pathway @ \$15,000 yr1; \$20,000 yr2; and \$10,000 yr3 • Contractual resources to develop articulation agreements with Cal State San Marcos • Contractual resources to develop coursework and collaboration with Cal State San Marcos 	\$ 75,000
CSUSB	<ul style="list-style-type: none"> • No resources requested 	\$ 0
UC Riverside	<ul style="list-style-type: none"> • No resources requested 	\$ 0
Category Total		\$ 3,619,712

CONSTRUCTION

Resources are not requested under this budget category

OTHER - \$119,000

A total of \$119,000 has been allocated to support project direct activities that do not fall into the above stated categories. These Other resource will be used to cover expenses related to professional development, convening of the Expert Review Team, Field Trips, and Job Portal creation/maintenance.

OTHER COST		
Member	Description	Cost
Chaffey	<ul style="list-style-type: none"> • Professional Development – Annual Summit @ \$10,000 ea/yr x 3 yrs • Resources for ERT to meet quarterly @ \$3,000 ea/yr x 3 yrs 	\$ 39,000
Norco	<ul style="list-style-type: none"> • No resources requested 	\$ 0

Barstow	• No resources requested	\$ 0
College of Desert	• No resources requested	\$ 0
Mt. San Jacinto	• No resources requested	\$ 0
Victor Valley	• No resources requested	\$ 0
SB Valley	• No resources requested	\$ 0
Crafton Hills	• No resources requested	\$ 0
Riverside CC	• Faculty Professional Development Fees @ \$7,500 yr 1 and \$12,500 yr 2 • Faculty/Student field trips to industry partners @ \$5,000 ea/y x 3 yrs • TriTech Job Portal Creation/Maintenance @ \$2,600 yr1; \$1,200 yr2; \$1,200 yr3	\$ 80,000
MiraCosta	• No resources requested	\$ 0
CSUSB	• No resources requested	\$ 0
UC Riverside	• No resources requested	\$ 0
Category Total		\$ 119,000

INDIRECT CHARGES - \$1,014,499

Indirect costs are included at a total of \$1,014,499 to provide the necessary grant administrative expenses (i.e., fiscal management, reporting, etc.). Percentages varied based on consortium member's needs and are in line with each members approved negotiated rate. See attached Indirect Cost Agreements.

INDIRECT COST		
Member	Description	Cost
Chaffey	• Total direct cost of \$5,324,139 x 18% - meets approved negotiated rate	\$ 378,708
Norco	• Total direct cost of \$1,410,433 x 10% - meets approved negotiated rate	\$ 121,903
Barstow	• Did not request indirect	\$ 0
College of Desert	• Total direct cost of \$1,287,508 x 10% - meets approved negotiated rate	\$ 53,547
Mt. San Jacinto	• Total direct cost of \$809,627 x 10% - meets approved negotiated rate	\$ 80,963
Victor Valley	• Total direct cost of \$174,120 x 27% - meets approved negotiated rate	\$ 47,013
SB Valley	• Total direct cost of \$1,082,229 x 8% - meets approved negotiated rate	\$ 86,578
Crafton Hills	• Did not request indirect	\$ 0
Riverside CC	• Total direct cost of \$891,312 x 10% - meets approved negotiated rate	\$ 89,131
MiraCosta	• Total direct cost of \$272,808 x 10% - meets approved negotiated rate	\$ 27,282
CSUSB	• Total direct cost of \$128,060 x 15% - meets approved negotiated rate	\$ 19,209
UC Riverside	• Total direct cost of \$67,235 x 52% - meets approved negotiated rate	\$ 34,962
Category Total		\$1,014,499

SUMMARY OF REQUEST	
Personnel	\$5,563,757
Fringe	\$2,349,253
Travel	\$ 152,387
Equipment	\$1,514,575
Supplies	\$ 647,101
Contractor	\$3,619,712
Construction	\$0
Other	\$ 119,000
Indirect	\$1,014,499
TOTAL REQUEST	\$14,980,284

Summary Evaluation Plan – Budget Narrative
 Chaffey Community College District – Inland Empire Regional Training Consortium (IERTC)
 Trade Adjustment Assistance Community College and Career Training (TAACCCT) Grants Program

I. Budget Narrative

ICF's total proposed budget for the Program Evaluation of Chaffey Community College District – Inland Empire Regional Training Consortium (IERTC) and integrated Career Ladders Projects is \$1,293,616 which meets the criteria for limiting evaluation expenditures to less than 10 percent of the overall grant request. The overall proposed evaluation budget is summarized below, along with a breakdown of costs per year.

Evaluation Costs per Year by Category

	Year 1	Year 2	Year 3	Year 4	Total
Labor	\$247,630	\$202,379	\$207,711	\$286,697	\$944,417
Travel	\$3,468	\$2,734	\$503	\$503	\$7,208
Supplies and Other Direct Costs	\$35,798	\$67,981	\$101,527	\$136,685	\$341,991
TOTAL	\$286,896	\$273,094	\$309,741	\$423,885	\$1,293,616

Year 1. Year 1 expenditures represent October 2014 through September 2015. Year 1 activities are focused on proper design, implementation, and the development of protocols for both the participant impact analysis and the program implementation analysis of the evaluations, and include the following:

- Attend a kick off/ planning meeting with Chaffey Community College District (CCCD)
- Participate in conference calls with CCCD, as appropriate.
- Review any comments on the evaluation design forwarded by the U.S. Department of Labor (USDOL) and provide CCCD with options to meet USDOL requirements.
- Develop a final evaluation design plan for submission to the USDOL that includes detailed methodologies and protocols for the participant impact analysis and program implementation analysis and include all recommendations from USDOL's review of the summary evaluation plan.
- Develop material for and receive approval for study protocols from the Evaluator's Institutional Review Board (IRB) and CCCD IRB (if required).

*Summary Evaluation Plan – Budget Narrative
Chaffey Community College District – Inland Empire Regional Training Consortium (IERTC)
Trade Adjustment Assistance Community College and Career Training (TAACCCT) Grants Program*

- Finalize any necessary agreements between third party evaluator and CCCD concerning use of, and access to, necessary data sets for conducting the evaluation.
- Finalize data security and transmission procedures and protocols.
- Assist CCCD with identifying appropriate comparison group subjects, utilizing propensity score matching technique (or other technique, where appropriate).
- Develop informed consent forms for use with participants and comparison group subjects.
- Develop data elements and questions to be asked of participants during enrollment.
- Create data collection tools, processes, and protocols for participant impact analysis and program implementation analysis activities.
- Finalize the quantitative and qualitative analysis framework for participant impact and program implementation analyses.
- Develop a site visit schedule
- Conduct first site visit to collect information from CCCD on program implementation.
- Obtain data sets from CCCD and administer surveys to collect other data from study participants for impact analysis.
- Collect unemployment insurance wage records for study participants (if available).
- Combine, clean, and analyze data sets for impact and implementation analysis.
- Report year 1 findings to CCCD

Year 2. Year 2 expenditures represent the time period of October 2015-September 2016. Year 2 activities are focused on methodology implementation, observations, data collection and analysis, and drafting the Interim Evaluation Report. Year 2 activities include the following:

- Participate in conference calls with CCCD, as appropriate.
- Provide oral briefings to CCCD as a continuous improvement mechanism.

*Summary Evaluation Plan – Budget Narrative
Chaffey Community College District – Inland Empire Regional Training Consortium (IERTC)
Trade Adjustment Assistance Community College and Career Training (TAACCCT) Grants Program*

- Make any necessary adjustments during comparison cohort process while maintaining required reliability and validity.
- Conduct site visits to collect program implementation information.
- Obtain data sets from CCCD and administer surveys to collect other data from study participants.
- Collect unemployment insurance wage records for study participants (if available).
- Combine, clean, and analyze data sets for impact and implementation analysis.
- Report year 2 findings to CCCD
- Draft the Interim Evaluation Report for submission to USDOL.

Year 3. Year 3 expenditures represent the period of October 2016 to September 2017. Year 3 activities are focused on methodology implementation, observations, data collection and analysis, and include the following:

- Participate in conference calls with CCCD, as appropriate.
- Provide oral briefings to CCCD as a continuous improvement mechanism.
- Make any necessary adjustments during comparison cohort process while maintaining required reliability and validity.
- Conduct site visits to collect program implementation information.
- Obtain data sets from CCCD and administer surveys to collect other data from study participants for impact analysis.
- Collect unemployment insurance wage records for study participants (if available).
- Combine, clean, and analyze data sets for impact and implementation analysis.
- Report year 3 findings to CCCD

Year 4. Year 4 expenditures represent the time period of October 2016-September 2017. Year 4 activities are focused on finalizing both the comparison cohort studies and program implementation studies by

*Summary Evaluation Plan – Budget Narrative
Chaffey Community College District – Inland Empire Regional Training Consortium (IERTC)
Trade Adjustment Assistance Community College and Career Training (TAACCCT) Grants Program*

synthesizing the data, providing final evaluation conclusions, assessing final program impacts and drafting the final evaluation report, and include the following:

- Participate in conference calls with CCCD, as appropriate.
- Provide oral briefings to CCCD as a continuous improvement mechanism.
- Conduct site visits to collect program implementation information.
- Obtain data sets from CCCD and administer surveys to collect other data from study participants for impact analysis.
- Collect unemployment insurance wage records for study participants (if available).
- Combine, clean, and analyze data sets for impact and implementation analysis.
- Report year 4 findings to CCCD
- Complete final analysis of data, from years 1 – 4, for the implementation analysis and the participant impact analysis for the evaluations
- Draft and complete Final Evaluation Report for submission to USDOL.

Attachment D: Statement of Work

1. STATEMENT OF NEED

Overview - The Inland Empire (IE) is a vast geographic region located in Southern California comprised of two of the largest counties in the United States: Riverside and San Bernardino. The IE region covers 27,000 square miles and is home to more than 4.3 million people and represents 11.4% of California's total population. Both counties have moderately heavy population centers (Riverside, 303,871; San Bernardino, 209,924) but are mostly comprised of small towns. Riverside County's population is identified as 46% Hispanic, 39% White, and 6% African-American. San Bernardino County's population is comprised of 50% Hispanic, 33% White, and 8% African-American. Approximately 40% of residents in both counties, over the age of five, speak a language other than English at home, making this the most linguistically diverse region in the U.S.

The IE was one of the hardest hit regions financially by the national recession. According to the U.S. Census, the IE tops the list of the nation's 25 largest metropolitan areas in economic devastation and slow recovery due to the recession. San Bernardino City is the second poorest large city in the nation with 34.4% of its residents falling below the federal poverty line. Food scarcity and housing instability in both counties are directly correlated to unemployment rates higher than the state and national average since 2007. The unemployment rate in the Riverside-San Bernardino Metropolitan Statistical Area was 9.4 in March 2014. This compares with an unadjusted unemployment rate of 8.4 percent for California and 6.8 percent for the nation during the same period.¹ Due to these staggering statistics, the Inland Empire region is in need of investment to reskill dislocated workers to meet industry needs; therefore, a broad consortium of 12 colleges and universities plus multiple employers and partner agencies is proposing the **Inland Empire Regional Training Consortium (IERTC) Project** to serve trade-impacted workers with the creation of the **STEM Education Business Incubator (SEBI) Center**.

¹ State of California Employment Development Department, Labor Market Division (April 2014).

(a) Serving the Education and Training Needs of TAA-Eligible Workers

Describe the impact of foreign trade - Over the last 30 years, manufacturing in the U.S. has experienced intensive economic restructuring due to new markets, new technologies and increased foreign competition. According to a 2011 study released by the Economic Policy Institute, a staggering 2.8 million jobs, largely in manufacturing, have been lost as a result of the growing U.S. trade deficit with China since that country's entry into the World Trade Organization in 2001. This same study reveals the greatest impact was in California with an estimated net loss of 454,600 jobs.²

Further, US Department of Labor/ETA 2012 data reports indicate that California ranks number one in the nation in terms of approved TAA certification determination with over 7,214 estimated workers covered under Trade Activity Participation.³ Between October 1, 2010 and May 2014, a total of 357 TAA Certification determinations have been approved throughout California. A total of 23 of these TAA Certifications have been made to companies located in communities to be served by this project, impacting more than 1,628 TAA-eligible workers in this region.⁴ MiraCosta College, which received a Round 3 TAACCCT award, will also serve as a consortia partner on this application to ensure alignment with previously-funded TAACCCT Projects. This strategic partnership expands on existing TAACCCT efforts in Advanced Manufacturing and allows for proposed services to be extended to an additional 500 TAA impacted workers from neighboring San Diego County. A sample of TAA Certification determinations in communities served by this project is represented in Table 1 below.

Table 1: Sample Regional TAA Company Certifications

TAW No.	Company	Decision Date	Location
85108	Amron International	05/23/14	Etiwanda and Fontana, CA
81641	Sierra Aluminum Company	07/27/14	Fontana and Riverside, CA
83309	Southern California Edison	05/02/14	Victorville, Rancho Cucamonga, Rialto, Fontana,

² Economic Policy Institute (2011). *Growing US Trade Deficit with China Cost 2.8 Million Jobs Between 2001 and 2010*

³ US Department of Labor, ETA TAA Program, http://www.doleta.gov/tradeact/TAPR_2012.cfm?state=CA (June 2014)

⁴ US Department of Labor, ETA TAA Program, http://www.doleta.gov/tradeact/taa/taa_search_form.cfm, (May 2014)

			Ontario, Hesperia, Romoland and Cathedral City, CA
83314	IndusPac California	02/21/14	Ontario, CA
82983	Parker Hannifin Corporation	10/01/13	Riverside, CA
80136	Mitsubishi Digital Electronics	11/23/11	Ontario, CA
74285	Invensys Rail Corporation	10/07/10	Rancho Cucamonga, CA
81423	Sony	06/20/12	San Diego, CA
74313	Becton Dickinson	07/27/10	Oceanside, CA
80121	Nexergy	08/10/13	Escondido, CA

Describe the education and training needs of the TAA-eligible workers - Many of the above referenced trade-impacted workers were employed in regional manufacturing industries. These assembly workers are not a few select community members; rather, they represent the heartbeat of each community to be served. The TAA-eligible worker seeks to re-engage in the local economy through training in hi-tech, in-demand skills to meet the current slew of un-fulfilled jobs with local manufacturing employers.

Current level of skills and educational attainment – Recent studies indicate that the average educational attainment in the IE is lower than both state and national averages. The share of population in the IE with no high school diploma is 21.4% compared to 19.2% for California and 14.6% for the nation. Similarly, the share of the IE's population with a bachelor's degree is only 12.8% compared to 19.3% in California and 17.7% in the nation. In terms of overall postsecondary attainment, the share of the population with an associate's degree or higher – is about ten percentage points lower than the California average of 38% and eight percentage points below the national norm of 36%.⁵ Further, according to the local TAA agency, some TAA-eligible workers will need additional basic skills training, such as remedial math, writing and reading comprehension, and English language proficiency.⁶

The US DOL's TAA CA State Profile describes the average TAA-eligible worker as 46 years of age with over 12 years of experience in a specific job that may no longer exist. Further, TAA participants in CA come from diverse backgrounds and industries and therefore possess a wide array of skills and experience (i.e., machining, electrical, logistics, welding and metal fabrication). The proposed Inland

⁵ Chmura Economics & Analytics. (2013). *The San Bernardino County Economy – Economic Trends and Forecasts*.

⁶ Tamillo, A. (2013). *State of California Employment Development Department*. TAA Data San Diego, Unpublished

Empire Regional Training Consortium Project (IERTC), composed of multiple stakeholders in manufacturing, education, workforce development and community-based organizations, will build on existing skill sets, interest and experience in manufacturing to compete for today's careers in Advanced Manufacturing with short-term, modularized instruction leading to portable and stackable certifications.

Barriers to employment – TAA-eligible workers in the region face a range of barriers seeking employment. Many TAA-eligible workers have been out of school for years and may not know what courses or programs are available to help them return to work quickly, particularly if they need to complete specialized training to help prepare them for jobs in the region's more stable high-wage, high-skill growth industries. In addition, many eligible workers may have limited time to invest in education given family obligations and limited financial resources to support their education. Furthermore, because of the large geographic makeup of the region, eligible participants may encounter difficulty because of distance from colleges or because courses are either impacted or not available at times when they can attend. Additional barriers faced by TAA-eligible workers include lack of affordable childcare, digital illiteracy, lack of transportation, and weak study and soft skills.

The Proposed IERTC Project will serve a total of 2,589 workers and other adults over the four year project period. To ensure that TAA-eligible workers are served the project will employ several strategies which include, but are not limited to: 1) referral resource partnerships and leveraging of resources with other TAA serving organizations (i.e., California EDD Workforce Services Division, San Bernardino and Riverside County WDD/WIBs, specifically America's Job Centers of California staff); 2) implementation of advanced online and technology-enabled learning to ensure inclusion of TAA-eligible workers across the region and state; 3) media campaigns specifically marketed at TAA-eligible workers highlighting the availability of services throughout the region; and 4) developing a robust recruitment plan during the planning phase which incorporates specific strategies and measures to include TAA-eligible workers, veterans and traditionally underserved populations.

Describe partnerships with cooperating state agencies - IERTC recognizes the importance of strong partnerships with workforce agencies to ensure the project is implemented successfully. State and local workforce agency input was critical to the development of IERTC's design and the consortium's overall proposal. All partners have committed their continued support to this project once funded.

The Employment Development Department administers the TAA for Workers program in California. Through the guidance of California's TAA state coordinator, IERTC will work with local TAA division coordinators to arrange program orientations and recruitments to ensure trade affected and dislocated workers are given the opportunity to learn about and enroll in the IERTC Program. In addition, IERTC will model the success of MiraCosta College, a round three TAA grant recipient, to recruit TAA-eligible workers.

At the local level, IERTC colleges have developed strong ties to local Workforce Investment Boards, Workforce Development Departments and Employment Development Departments, which deliver TAA benefits, ensuring that the proposed activities reach TAA-eligible workers in all regions. These existing relationships will be leveraged to help colleges recruit and provide services to TAA-eligible workers. Local TAA serving entities will access shared, real-time manufacturing skills needs data with college partners to create deeper collaboration in support of employer need and demand driven economic development. The table below outlines IERTC workforce partners and their projected role.

Table 2: State and Local Workforce Agency Partners and Roles

PARTNERS	ROLES/SERVICES PROVIDED
<ul style="list-style-type: none"> • CA Employment Development Department • SB County WIB • Riverside County WIB 	<ul style="list-style-type: none"> • TAA Referrals, Screening and TAA fund administration • Career readiness testing and preparation • Case management • Coordination with existing WIOA activities • Participation on IERTC Advisory Committee • Orientation/training on effective TAA recruitment strategies

(b) Evidence of Job Opportunities in the Targeted Industries and Occupations

Evidence of Employer Demand for Targeted Industries and Occupations - Over the past ten years, the IE has grown substantially faster than the state and national norms of roughly 1% per year. The population of the two-county region grew 2.2% per year for the past decade. This population growth is

significant and projections are that the population of the Riverside-San Bernardino-Ontario, California Metro Service Area (MSA) will continue to grow more quickly than the rest of California over the coming decade, which in turn will help bolster the region's long-run economic prospects.⁷

The IERTC Project focuses on the support of occupations related to **Advanced Manufacturing NAICS two-digit codes 31-33**. Manufacturing is critical for the long-term health of California's regional and statewide economies. According to the California Manufacturers & Technology Association (CMTA), manufacturing in California generates \$230 billion in gross state product and funds 60% of research and development activities in California.⁸ At the local level, manufacturing within the IE is also recognized as a primary economic driver – a Human Resources manager at one of the largest private manufacturing employers stated that they anticipate hiring an additional 100 employees paying an average of \$70,000 a year with their new Pipe Mill expansion. Further, one measure used to forecast growth is the Purchasing Managers Index (PMI). The Purchasing Managers Index (PMI) is derived using indicators related to production and new orders as well as inventories and employment level. If a PMI is 50 or greater, then growth is expected. The PMI for the IE in September 2013 was 53.⁹

According to the California Inland Empire District Export Council, the region's top five export sectors are all in manufacturing: computer and electronic product manufacturing (20% of all exports), miscellaneous manufacturing (20%), transportation equipment (13%), machinery manufacturing (8%), and chemical manufacturing (7%).¹⁰

A recent Centers of Excellence (COE) report, an initiative of the CA Community Colleges Economic & Workforce Development program that provides data on critical industries and occupations, indicates that

⁷ Chmura Economics & Analytics. (2013). *The San Bernardino County Economy – Economic Trends and Forecasts*.

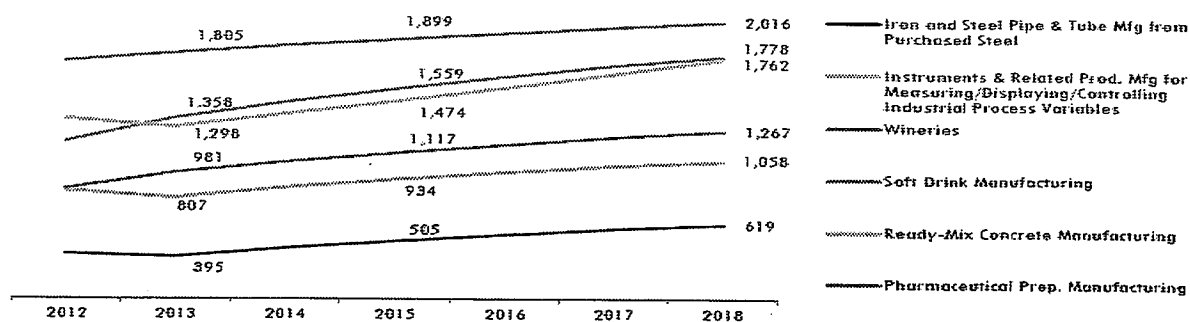
⁸ "Manufacturing Employment Data." California Manufacturers & Technology Association. <http://www.cmta.net/page/mnfg-trends.php>

⁹ "Inland Empire Report on Business." (2013). The Institute for Applied Research, Cal State San Bernardino.

¹⁰ "The Inland Empire Region." The California Inland Empire District Export Council. <http://www.ciedec.org/inland-empire-region.html>

within the IE's two-county region, there are 4,350 advanced manufacturing businesses, which generate \$24 billion in revenue, and provide an estimated 96,519 jobs, according to 2012 data. Six subsectors within the advanced manufacturing sector are expected to expand between now and 2018. Those subsectors, which include iron and steel manufacturers, are shown in Figure 1.¹¹

Figure 1. Advanced manufacturing industries undergoing expansion (2012-2018)



In addition, this same COE report identified 45 manufacturing occupations in the region with an expected 2,020 annual openings (new and replacement jobs) over the next year alone. The table below provides a sample of these occupations.

Table 3: Labor Market Data for Manufacturing Related Occupations in the Region

Occupation Description	2013 Jobs	2015 Jobs	Change	% Change	Annual Openings	Median Hourly Earnings
Maintenance and repair workers, general	11,429	11,736	307	3%	368	\$17.09
Industrial Machinery Mechanics	2,376	2,457	81	3%	88	\$23.52
Electrical and Electronics Engineering Tech	1,064	1,085	21	2%	32	\$28.07
Maintenance Workers, Machinery	677	683	6	1%	14	\$21.02
Electro-Mechanical Technicians	188	193	5	3%	6	\$24.78
First-Line Supervisors of Mechanics, Installers, and repairers	3,604	3,679	75	2%	125	\$31.35
Electronic Engineers, Except Computers	826	877	51	6%	47	\$47.47

Centers of Excellence (2014)

Finally, research indicates that LMI projections do not and cannot tell the complete story of demand. In fact, due to retirements from aging workers many anticipate nearly 2 million job openings in national manufacturing by 2018.¹² Through focus groups and TAACCCT planning meetings, local

¹¹ Centers of Excellence. (2014). *Advanced Manufacturing Industry & Occupations in the Inland Empire*.

¹² Carnevale, A., Et.al. (2011) *Career Clusters: Forecasting Demand for High School Through College Jobs 2008-2018*

employers have echoed this finding and over 90% indicated that they anticipate growth and/or hiring to meet expected demand. To this end, IERTC partner employers have projected an additional 967+ current and expected job openings over the next six years. These new positions will require highly skilled industrial maintenance workers, welding and metal workers, conventional and Computer Numerical Control (CNC) machining operators, production technicians, medical equipment repairers and other technical positions, and are not fully reflected in current LMI projections.

Based on the above referenced findings, the IERTC project was developed in partnership with local employers who share a vested interest in creating opportunities in the community for TAA-eligible workers and other adults to obtain employment as a result of participation in this project. To this end, partner employers are committed to incorporating IERTC graduates into their recruitment and placement strategies (see Mandatory Other Attachment Section - Documentation of Employer Commitment).

Understanding of Skills Required in the Targeted Industries and Occupations - Manufacturing jobs that once required a largely general-skilled, trainable workforce are declining or moving overseas. As one analyst puts it, "We've moved out of an age where a pair of hands, a strong back, and a healthy work ethic is all that's needed to get a good paying job in manufacturing...The shift away from "old-line" manufacturing toward more advanced, computer-assisted manufacturing has changed the type of worker needed."¹³ Manufacturing no longer needs legions of trainable employees that specialize in a single skill. The prevalence of computer-controlled machinery managed by systems like job shop manufacturing software now demands manufacturing workers who possess a combination of math skills, critical thinking, intuition, stamina, technical expertise and often a college degree. This paradigm shift is supported in data from the Bureau of Labor Statistics, as reflected in posted manufacturing industry education requirements.

Table 4: Education Requirements - Manufacturing

Education Requirement	Occupations
On-the-job training; Industry	<ul style="list-style-type: none"> • Maintenance workers & repair workers • Drafters, engineering technicians, and mapping

¹³ Singleton, D. (2011). Manufactures Are Hiring Again; What Skills Are They Looking For?

Certification; Postsecondary Certificate; Associate Degree	<ul style="list-style-type: none"> • Industrial machinery mechanics • Electricians • Machinists • Welding, soldering, and brazing machine setters, operators and tenders 	<ul style="list-style-type: none"> technicians • Electrical & electronic engineering technicians • Electro-mechanical technicians • Industrial engineering technicians • Mechanical engineering technicians
Bachelor's degree or higher	<ul style="list-style-type: none"> • Industrial production managers • Architectural and engineering managers • Electrical engineers 	<ul style="list-style-type: none"> • Electronics engineers, except computer • Industrial engineers • Mechanical engineers • Software engineers

Further, industry research and local employer feedback helps solidify the understanding that the in-demand jobs in manufacturing are not for workers with limited skills and education. In fact, the large majority of regional manufacturing openings required more than a high school diploma, and companies now seek employees with an educational attainment beyond high school for one out of every four production-related jobs.¹⁴

The occupations outlined in Tables 3 & 4 above typically require strong foundation skills (reading, writing, math and/or computer skills) and a robust set of technical and organizational skills often associated with contextualized learning. In addition, technological advancements in manufacturing now require workers to maintain deeper set of skills and flexibility demonstrated by industry recognized certificates and degrees. Some of these technological skills include manufacturing process development, design, production, maintenance, installation and repair, quality assurance/continuous improvement and safety.¹⁵

Finally, a recent focus group convened by the region's Deputy Sector Navigator for Advanced Manufacturing confirms that local employers are seeking highly trained workers with knowledge of mechanical and electrical engineering processes and an understanding of hydraulic, pneumatic and electrical systems. Also highly sought are employees who can work with computerized systems, read and write machine programming code, extract information from manufacturing blueprints and operate automated manufacturing systems.

¹⁴ Center for Regional Economic Competitiveness. (2011). *US Manufacturing Jobs: Where Companies Are Hiring*

¹⁵ NAM-Advanced Manufacturing Competency Model

The role of a pre-existing Manufactures Council of the Inland Empire (MCIE) and other partner employers is integral to the development and success of all content developed and delivered during the grant period of performance. The MCIE was originally started in 2001 when six manufacturing firms came together to train their maintenance employees to improve their skill base. They worked with Chaffey College, San Bernardino Community College District and the San Bernardino County Workforce Investment Board to secure funding for training equipment and instruction costs. Over the last eight years, the MCIE has grown to 50 manufacturers and implemented nine new programs ranging from 8 hours to 460 hours in duration through the collaboration with Chaffey College, San Bernardino Community College District and the San Bernardino County Workforce Investment Board. The programs provide training to hundreds of manufacturing and distribution firms in the region include: Intermediate and Advanced Electrical and Mechanical Craft Development, Welding, Entry Level Manufacturing Skills, Management, Microsoft Office, and Lean Manufacturing/5S.

MCIE and Employers will support research on needed skills and responsibilities, review and help finalize educational competencies that need to be developed, and beta test curricula and assessments at the new proposed IERTC STEM Education and Business Incubation (SEBI) Center. Further, employers, the MCIE and other industry partners will play a critical role on the IERTC Advisory Committee to advise on real-time shifts within the manufacturing industry as well as will be asked to serve on one or more sub-committees that will focus on the following primary topics: finance and sustainability, recruitment and community outreach, curricula & certification, policy, articulation, job placement and program evaluation.

(c) Gap Analysis

Describe the significant gaps - Employers in the IE report it is difficult to find skilled workers to fill manufacturing openings throughout the region. Experts correlate this worker shortage to a decline in Career and Technical Education within public schools, which has curbed the pipeline of students leaving high school who are ready to learn more advanced skills in industrial technology through employment or

community colleges. Industry insiders also assert that a workforce shortage has been exacerbated because the skillsets of workers have not kept pace with industry advances as manufacturing has become more technologically sophisticated in recent decades.¹⁶

Local industry reports were used to inform the consortia of existing gaps related to education and career training programs. As shown below in Table 5, there are some advanced manufacturing training programs in the IE that lead to certificates or degrees; however, significant gaps exist between training offered by colleges versus training required by employers.

Table 5: Manufacturing-related programs offered by community colleges and proprietary schools

Program/College	Barstow	Claremont	Chaffey	Desert	Fullerton	North	Palo Verde	Riverside	San Bernardino	Vista Valley	NJMA Training	GE/San Beto
Engineering Technology, General												
Electronics and Electric Technology												
Electro-Mechanical Technology												
Drafting Technology												
Architectural Drafting												
Mechanical Drafting												
Manufacturing and Industrial Technology												
Machining and Machine Tools												
Welding Technology*												

*Regional ROPs offer welding courses

Describe how the identified gaps impact the applicant's ability to effectively serve - The number of student completions at the regional colleges does not fill the number of jobs available. On average, the colleges graduate roughly 80 students per year with the majority of those graduates transferring to four-year colleges. Regional colleges only produce slightly over 200 technical graduates who may fill mid-level jobs in manufacturing but the industry needs are more than double that each year. The problem lies in the number of students who do not persist through college and earn a certification or degree. On average the eleven colleges enrolled approximately 1,100 students in vocational programs available to supply trained workers for technology industries in the region. Of these 1,100 enrollments, only

¹⁶ Centers of Excellence. (2014). *Advanced Manufacturing Industry & Occupations in the Inland Empire*.

20-30% of students persisted until they earned a certificate. The awarded certificates are those offered by the college and do not reflect nationally recognized industry certifications.

Due in part to the recent economic recession, many of the colleges had critical reductions in their occupational programs. Participating colleges only average one full-time instructor per occupational area and any cuts severely reduce program capacity and lose the benefit of long-term business relationships. Retirements have resulted in the loss of two machine trade full-time instructors, an electronics instructor and a welding instructor. Part-time adjunct faculty replaced all these individuals.

Furthermore, two years ago Chaffey College was approached by California Steel Industries (CSI), the MCIE, local WIBs, and other local industry representatives to **develop a regional training center** that would quickly train and certify qualified electrical and mechanical craft technicians to address shortages in the workforce. A cornerstone of the IERTC Project is the physical space commitment from California Steel Industries, Inc. in Fontana, California of more than 28,000 of square feet of space which will house the proposed IERTC SEBI Center, estimated in-kind value at \$6,000,000. The innovative education, training and delivery design will allow consortium partners access to a range of onsite classroom and training laboratories as well as distance education and remote access training options. In addition, as part of the curriculum, CSI and other manufacturers will continue to expand the successful paid internship program that has effectively hired trainees from Chaffey College and San Bernardino Community College District.

TAA funding will help to provide the necessary resources to staff, renovate and effectively equip the regional SEBI Center and support proposed IERTC strategies. Once funded, the proposed IERTC Project will allow the region to develop accelerated credit, noncredit and not-for-credit programs that lead to industry recognized certifications and hands-on experience as a result of timely and relevant industry driven career pathways.

2. METHODOLOGY AND WORKPLAN

PROJECT DESIGN – This application is submitted on behalf of 12 colleges from Southern California who comprise the TAACCCT Inland Empire Regional Training Consortium (IERTC). The project includes active involvement of over 43 partnering agencies and is supported by United States Senator Dianne Feinstein. The project is designed to support systematic change and build synergy among higher education and industry partners throughout the region. The guiding principles of the proposed approach include: evidence-based design and standardization of courses as the basic building blocks for programs; customization of programs to include stacked and latticed credentials to meet the needs of employers and students; coordinating the transferability and articulation of credit; adoption of online and technology enabled learning; strategic alignment and regionalization of capacity building based on industry priorities within the IE; and alignment with previously funded TAACCCT Projects. Utilizing wrap-around student support, rapid remediation and contextualized core skills, IERTC will build capacity to deliver and prepare TAA-eligible and other adult workers with skills for the Advanced Manufacturing Industry Sector. Based on initial analysis of industry need and college programs, IERTC will concentrate on the following five broad technical skill areas as indicated in Table 6 below.

Table 6: IERTC Five Technical Skills Area Focus

Technical Skills Area Focus				
Machining	Industrial Maintenance	Metal Fab & Welding	Automation & Robotics	Pre-Engineering
Machine Trades	Electrical distribution and power	Welding: Metal ARC, MIG, TIG	Program Logic Controllers (PLC)	Innovative Design
CNC Programing	Mechanical Drives	Sheet metal, HVAC	3, 4, & 5 Axis Robotics	Drafting: CAD, CAM Solidworks
3-D Modeling (Rapid Prototyping)	Plumbing, Hydraulics & Pneumatics	Piping and process industry	Storage and Retrieval systems	Tooling & Process Control
Additive Manufacturing	Motor Controls		Mechatronics	Calculus, Physics, Material Science
Quality, ISO	Quality, ISO	Quality, ISO	Quality, ISO	Quality, ISO

The proposed IERTC innovative education, training and delivery design will allow college partners access to a range of onsite classroom and training laboratories as well as distance education and remote access training options. Education, training and professional development will be provided through multiple delivery methods as follows.

Onsite classroom and technical laboratory training at the IERTC SEBI Center - Colleges may schedule classroom instruction in one of the regional training center classrooms and conduct hands-on technical training sessions in the fully equipped advanced manufacturing training lab. The training lab will be equipped with both computer simulators and advanced manufacturing equipment required for training in each of the five focus areas described above.

The IERTC SEBI Center will allow both educators and businesses to meet at a common regional location accessible to all so that coordination and cooperation can be ensured and obtained by all parties. With the creation of the SEBI Center, a new wave of workforce understanding will be developed and implemented. First and foremost the SEBI Center will be open to all colleges, schools, and local industry as part of this grant collaboration. Whereas most colleges currently require a long formal faculty and administrative process to bring new curricula to students, the SEBI Center will be used as a creative solution and location where industry and colleges will partner to create new and **industry driven accelerated programs and courses** as a scalable prototype for innovation.

Many nationally recognized certifications offered or required by industry are not currently offered as regular curricula by colleges in the region. IERTC anticipates that the new SEBI Center will be a coordinated training site where industry credentialing will occur and students and incumbent workers will earn credentials while also receiving articulation credit offered by consortium colleges. Additionally, as a hub for industry, the proposed SEBI Center will maintain audio-video and Internet connectivity that will promote sharing, teaching and demonstration abilities with all regional secondary and postsecondary educational institutions and shape career pathways. With technology changing rapidly and colleges with limited budgets for new equipment, the SEBI Center will prove to be an economic method to scale technology and technical training throughout the region. Developing broadcast capacity will allow programs developed in partnership to be delivered not only to schools, colleges and universities throughout the IE region but to other interested colleges across the state and nation.

Many of the regions rural schools and colleges are economically disadvantaged and suffer from lack of technology laboratories. Through TAA resources and support from CSI, MCIE and other economic agencies, the SEBI Center will offer access to the latest technology and equipment used in advanced manufacturing. Technologies will include a wide range of digital automation, robotics, machining, power distribution, PLCs, welding, MIG, TIG, 3-D printing, and CSI's own pipe making equipment. These technologies will foster the opportunity for new programs to be adopted by regional colleges who will not have to add expensive equipment in order to offer high tech programs. Linking all colleges to the SEBI Center will allow more students to have access to high-technology even when the local college may not house laboratories on their campus.

Closed-circuit classroom and technical laboratory training at the SEBI Center and individual Community Colleges - This option will allow students from remote colleges to participate in classroom instruction hosted at the SEBI Center via closed-circuit broadcast linked between the Center and the students' local community college. Students will access classroom instruction via real-time classes broadcast via closed-circuit television allowing students to access the high quality curriculum and instruction without having to commute long distances for weekly/daily classes. For colleges which do not have access to manufacturing equipment for hands-on training, students will be able to attend technical training sessions on-site at the SEBI Center. This combination of remote classroom access and onsite technical training will allow colleges to provide new training programs to their students.

Mobile Training Laboratories - Funds from the grant award will be used to update manufacturing equipment for two mobile training labs housed at the Barstow and San Bernardino Valley College campuses. Mobile training labs will be used for two primary purposes. First, colleges offering courses and programs via closed-circuit classes and/or web-based curriculum for more remote or rural areas may schedule use of the mobile labs for the hands-on practicum components of their courses eliminating the high cost of installing and maintaining complex equipment labs at their home campus. Second, the mobile

labs will be used as outreach tools to secondary school students allowing hands-on exploration of advanced manufacturing skills.

Online Training and Resources - All colleges and students will have access to a wide range of online educational training and resources to support and enhance classroom and laboratory learning. Online learning tools will include, but will not be limited to: access to specialized training software (i.e. Amatrol's simulation software); repository of classroom and laboratory digital lessons, a Khan Academy for advanced manufacturing; online learning and assessment tools; online tutoring, career exploration and guidance counseling; industry recognized assessment and skills mastery; archived classroom lectures and laboratory demonstrations; online and integrated student tracking and data collection; online fiscal tracking; and curriculum development and design tools.

Professional Development - Further, as a critical systems change component, IERTC has built in a strong professional development component specifically designed to build synergy between regional educators and industry partners. A key training activity is an annual 2-day Regional Workforce Development Conference with additional follow-up services. Through this approach participants will receive industry specific training and resources they can take back to each college and utilize to present to other faculty members.

IERTC will secure an industry recognized keynote speaker for this conference to draw participation and enhance the credibility of the trainings. Break-out sessions will be led by both education and industry partners with each break-out session focusing on a specific advanced manufacturing industry sub-sector/technical skills training area. Participants of these sessions will be exposed to industry specific curricula, current research and trends, contextual learning strategies, best practices and more.

In order to maximize the impact of this conference on regional training, IERTC will employ various follow-up technology based learning strategies to reach those teachers not able to attend the conference and provide a recap for those that did. Each training sessions will be videotaped and/or recorded so that

information can be brought back to each college campus via a series of training CD's. Further, session materials and footage may be accessed on the project developed website. Podcasts of content and other methods delivering content will be explored.

The IERTC is an opportunity for community colleges and business to collaborate in a coordinated, large-scale effort to develop the highly trained/highly technical workforce needed to advance industry and the region's economy. The Inland Empire communities have long been under supported by federal dollars. The TAACCCT grant provides an ideal opportunity to bring much-needed dollars to the region in support of economic development and recovery.

(a) Evidence-Based Design

Review of Evidence for Program Design; Description of the Research Findings; and Use of Evidence in Program Design - The planning team met regularly over the past year in order to prepare and design the proposed IERTC Project. The review of evidence-based research and best practice was a key factor to the design of each program component. In addition, local industry and academic experts were crucial in determining which activities were to be included in the project based on research findings, existing regional policy/practice and group consensus for systemic change.

To this end, in order to address the gaps identified above and successfully implement the proposed program design, IERTCs' **strategies/objectives** are to 1) Identify and address skills gaps by building programs that meet industry need; 2) Accelerate and improve certification and employment attainment; 3) Enhance articulated career pathway options for learners and workers; 4) Strengthen teaching which includes innovative advanced online and technology-enhanced alternative training methods and 5) Facilitate regional professional development opportunities and technical assistance to support effective implementation and regional systemic change. **Actions to address these objectives will replicate national strategies centered on evidenced based research and best practice**, as indicated in Table 7.

Table 7: Research Findings Incorporated into IERTC Strategies/Objectives

Description of Research Findings	IERTC Use of Evidence in Program Design
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<p>Strategy/objective: 1) Identify and address skills gaps by building programs that meet industry need</p> <p><i>National Survey on the Value of a Credentialed Workforce.</i>¹⁷ Preliminary evidence that industry NCRC and NAM-endorsed credentials provide value to the industry. Research found that the majority of employers use at least one NAM Endorsed Manufacturing Skills Certifications. The most commonly used was OSHA. Further, employers prefer to hire individuals with certifications but that they cannot find them. Over 90% of employers responded positively that there is recognition of the potential value of the use of certifications and how they affect employee performance. Over 90% of employers noted either "Modest Impact" or "Significant Impact" on at least two criteria areas, including Improved hiring practices, Decreased on-the-job training time/cost, Enhanced workplace safety, and improved company performance. Barriers identified: Despite adequate awareness of certifications, it is well known that the use of certification programs could be more common. Three significant opportunities to increase certification use: Expand awareness of the programs; Increased availability of relevant information that will move manufactures to action; and Improvements in the ability of certification programs to show their value to manufactures.</p>	<ul style="list-style-type: none"> • Develop/introduce/expand new NCRC and NAM-endorsed certificate programs (i.e., ACT, AWS, NCCER, MSSC, NIMS, and OSHA) • Develop/introduce/expand new AAS degree programs tied to NAM-endorsed certifications • Revise existing certificate or degree programs to align with NAM-endorsed certifications • Certify all students using NCRC+ • Market the value of certifications to employers
<p>Strategy/objective: 2) Accelerate and Improve Certification and Employment Attainment</p> <p><i>Availability, Use and Value of Prior Learning Assessment within Community Colleges.</i>¹⁸ Preliminary evidence that students with Prior Learning Assessment (PLA) credit had higher graduation rates, better persistence, and lower time to degree, compared to students without PLA credit.</p> <p><i>Facilitating Student Learning Through Contextualization.</i>¹⁹ Review of moderate research studies that contextualization appears to be a promising direction for accelerating the progress of academically underprepared college students. Both forms of contextualization, i.e., contextualized and integrated instruction, are supported by quantitative studies that include control or comparison groups. Instructors may be unwilling to consider contextualization because they feel that basic skills instruction is beyond their range of responsibility and/or competence. Colleges need to provide ongoing direction and support.</p> <p><i>Assessing Developmental Assessment in Community Colleges.</i>²⁰ Review of moderate to strong research studies on developmental education. The review located a number of recent studies on remediation that have employed sophisticated designs, such as regression discontinuity and instrumental variables approaches. A conclusion reached is that remediation is not clearly improving outcomes. Students at the lowest level have low odds of moving on to credit coursework.</p> <p><i>Job Training that Works: Findings from the Sectoral Employment Impact Study.</i>²¹ Strong evidence from a three-site random assessment study of sector-focused training found participants earned 18% more than controls over a 24-month period. Results led the authors to recommend that states invest in employment-linked job training programs. Partnerships among the workforce system, educational institutions, and employers enhance employment and wages.</p>	<ul style="list-style-type: none"> • Identify/Develop standard practices AND performance-based assessments to award credit for prior learning and/or non-credit/not-for credit training • Contextualize academics into foundational courses or provide concurrent technical and academic courses • Provide intensive student services to include tutorial supports, retention counseling, and job coaches to assist in career planning, stacking credentials, and securing financial aid • Introduce flexible schedules and curricular structures; modularize; chunking; 4-, 8-, 12- and 16- week formats • Profile program curricula skill levels and align with occupational profile skill levels; assess students through NCRC+ to determine capability to access the curriculum or prior remediation is needed • Develop/introduce soft skills curriculum and embed in technical skills training; certify soft skills through NCRC+ • Enhance Partnerships with the public workforce system and employer groups through the IERTC Sector Advisory Board
<p>Strategy/objective: 3) Enhance articulated career pathway options for learners and workers</p> <p><i>Funding Career Pathways and Career Pathway Bridges: A Federal Policy Toolkit for States.</i>²² Moderate evidence supporting work with industry to sequence education and training leading to credentials of value in the labor market; secure internships.</p>	<ul style="list-style-type: none"> • Structure programs into stackable credential career pathway model of credit, non-credit and not-for-credit options tied to NAM-endorsed credentials • Develop new articulation agreements with Career and Technical Education, other

¹⁷ Manufacturing Institute (2013). *National Survey on the Value of a Credentialed Workforce*.

¹⁸ Brigham, C. and Klein-Collins, R. (2010). *Availability, use and value of prior learning assessments within community colleges*. CAEL.

¹⁹ Perin, D. (2011). *Facilitating student learning through contextualization*. Community College Research Center.

²⁰ Hughes, K. and Scott-Clayton, J. (2011). *Assessing developmental assessment in community colleges*. Community College Research Center.

²¹ Maguire, Freely, Clymer, Conway (2009). *Job training that works: Findings from the sectoral employment impact study*. Public/Private Ventures.

²² Baider, A., et al., (2010). *Funding career pathways and career pathway bridges: A federal policy toolkit for states*. Center for Law and Social Policy (CLASP).

<p>clinical/technical sites and jobs to underscore relevance of skills.</p> <p><i>Tuning in to Local Labor Markets.</i>²³ Moderate evidence contending that strong industry participation results in clear pathways and programs through which more students and/or graduates are better prepared for work and find higher-wage jobs with benefits.</p>	<p>community colleges, universities, and trade schools</p> <ul style="list-style-type: none"> • Develop opportunities for work-based learning and paid internships
<p>Strategy/objective: 4) Strengthen teaching which includes innovative advanced online and technology-enhanced alternative training methods</p> <p><i>Learning Style and Effectiveness of Online and Face-To-Face Instruction.</i>²⁴ Moderate evidence contending that well-structured online courses taught by instructors who are adept at online formats are as effective as face-to-face instruction in terms of student test scores, assignment quality, participation, grades and perception of course effectiveness.</p> <p><i>Online Learning: Does it Help Low-Income and Underprepared Students?</i>²⁵ Review of moderate to strong research findings from 34 papers (some including multiple studies, resulting in a total of 36 studies) reaching different conclusions about online learning. One randomized and three controlled studies showed no difference between online and face-to-face student completion rates. Six of the controlled studies that showed higher withdrawal rates for online courses involved community college students. Various studies found that online coursework as typically implemented may hinder progression for low-income and underprepared students. A recent meta-analysis of the most high-quality studies (US Department of Education, 2009) suggested that online learning results in similar or better outcomes than does face-to-face learning.</p>	<ul style="list-style-type: none"> • Develop and implement online, open-access, hybrid, portable and/or short-term delivery methods • Enhance training with online simulation software • Assess students for the ability to benefit from online learning
<p>Strategy/objective: 5) Facilitate regional professional development opportunities and technical assistance to support effective implementation and regional systemic change</p> <p><i>What Makes Professional Development Effective? Results From a National Sample of Teachers.</i>²⁶ Strong research study uses a national probability sample of 1,027 mathematics and science teachers to provide the first large-scale empirical comparison of effects of different characteristics of professional development on teachers' learning. Results, based on ordinary least squares regression, indicate three core features of professional development activities that have significant, positive effects on teachers' self-reported increases in knowledge and skills and changes in classroom practice: (a) focus on content knowledge; (b) opportunities for active learning; and (c) coherence with other learning activities. It is primarily through these core features that the following structural features significantly affect teacher learning: (a) the form of the activity (e.g., workshop vs. study group); (b) collective participation of teachers from the same school, grade, or subject; and (c) the duration of the activity.</p>	<ul style="list-style-type: none"> • Deliver training on site at colleges and off-site at SEBI Center • Implement outreach to middle, high school and college instructional staff • Support faculty workgroups to update curriculum and programs • Faculty and staff attend industry-sponsored technical trainings and/or conferences • Host a 2 day Regional Workforce Development Conference
<p>KEY: (Industry Certs) ACT – National Career Readiness Certificate, foundational and soft skills; NIMS – Machine trades, CNC – many other metal working certifications; MSSC – Basic manufacturing in: Production, Safety, Quality and Maintenance; NCCER – Industrial Maintenance, Electrical, Instrumentation, Mechanical and Welding; AWS – welding skills; IECE – Inland Empire Center for Entrepreneurship; OSHA – General Industry 10 and 30 hour certifications, NFPA 70E certification, Cal CERTS – California energy rating provider; EPA – Environmental Protection Agency; NABCEP – North American Board of Certified Energy Practitioners; NCRC – National Career Readiness Certificate; and SEBI – Stem Education and Business Incubation Center</p>	

(b) Career Pathways

IERTC proposes to implement an advanced integrated career pathway approach. Students are able to enter this sequence at multiple entry points, including non-credit/hot-for-credit advanced manufacturing

²³ Maguire, S., et al., (2010). *Tuning in to local labor markets: Findings from the sectoral employment impact study.* Private/Public Ventures.

²⁴ Neuhauser, C., (2002). *Learning style and effectiveness of online and face-to-face instruction.* American Journal of Distance Education, Volume 16, Issue 2, pp. 99-113.

²⁵ Jaggars, S. (2011). *Online learning: Does it help low-income and underprepared students?* Community College Research Center.

²⁶ Garet, M., et.al. (2001). *What makes professional development effective? Results from a national sample of teachers.* American Educational Research Journal. Vol. 38, No. 4, pp. 915-945.

courses. Students are then able to "challenge" credit coursework, enter certification courses or credit-bearing courses through partnerships established with regional two and four year colleges. This will provide necessary course credits and/or industry recognized certification, licensure or credentials. Students will be able to obtain employment at various "exit points" at higher wages and/or return to complete coursework towards additional stackable certificates and/or degrees. A visual of this Sector-Focused Career Pathways model is included in the attachment section of this application.

IERTC will replicate evidence-based practices of the nationally recognized and California-based Career Advancement Academy (CAA) model developed through the California Community College Chancellor's Office. This model will be used to develop a comprehensive career pathway system with a focus on Advanced Manufacturing as a priority industry sector for Riverside and San Bernardino Counties as identified through the California DOING WHAT MATTERS initiative. CAA establishes pipelines to college and high wage careers for low-income adults who face academic and personal barriers to post-secondary education and employment. Complementary technical and support services for this model have been successfully provided through the California Community College's Career Ladders Project with TAA projects in the East Bay and Central Valley areas of California. Each CAA has clear connections to ongoing pathways with stackable certificates and degrees. While CAAs have focused primarily on underprepared and underemployed young adults (18-30), they can be easily adapted to serve TAA-eligible workers and other adults.

The model also aligns with a Linked Learning approach, which combines rigorous, standards-aligned academic instruction with advanced technical courses in an integrated, career-themed approach to ensure that all students are prepared for college, career and life. In San Bernardino and Riverside counties, Advanced Manufacturing pathways are currently implemented in eight school districts for grades 9-12 students with a focus on pre-engineering and design. Career Pathway efforts in the region have been supported through funding by the James Irvine Foundation and the California Department of Education. In addition, multiple regional occupational programs and career technical course sequences include welding, robotics and

machining technologies. Approximately 15 districts in the region are actively engaged in curriculum through "Project Lead the Way" which integrates engineering and design skill development with academic preparation using problem and project-based learning. It is estimated that in fall, 2014, approximately 8,000 to 10,000 local high school students will participate in these pathways and programs that actively engage and support students in advanced manufacturing as a local high-skill, high-wage career opportunity with multiple entry points and focus areas for certification, licensure and credentials and degrees.

How education and career-focused training programs will enable students to accelerate completion of remedial coursework, while learning; specific services and career guidance; and explanation of prior learning assessment - IERTC career pathways offer course sequences providing coherent and rigorous content aligned with challenging academic standards, relevant technical knowledge and skills needed to prepare participants for further education and careers in the Advanced Manufacturing industry sector. The IERTC Project will include contextualized and integrated classroom instruction that contributes to student academic knowledge, familiarity with all aspects of the Advanced Manufacturing industry sector, development of technical skill proficiency as well as training on industry-aligned work readiness skills and behaviors, including abilities in technical reading and writing; measurement, estimation and computation; and judgment and sound decision making.

IERTC will incorporate the following career pathway program components: **Intensive Intake and Admissions Process** – All TAA-eligible and other adults workers interested in participating in the IERTC Project will begin the process by taking initial assessment tests to help determine placement level within the program. In addition to existing college admission assessments that will gauge academic skill levels, IERTC will utilize the National Career Readiness Certificate (NCRC) WorkKeys system to measure essential workplace skills, including: problem solving; critical thinking, reading and using written, work-related text; applying information from workplace documents to solve problems; applying mathematical reasoning to work-related problems; setting up and performing work-related mathematical calculations; locating,

synthesizing, and applying information that is presented graphically; and comparing, summarizing, and analyzing information presented in multiple related graphics. Further, high school students entering the IERTC program following graduation will also be able to participate in pre-assessment workshops offered through San Bernardino Valley College's STEM GO project. This project helps students to prepare for and successfully complete entry level mathematics assessments as well as provides supplemental instructional support services for students in STEM-focused coursework, including those participating in the IERTC.

To assess prior learning, IERTC will utilize competency and performance based assessment models where students may demonstrate competency through hands-on and online assessments aligned with industry driven standards and/or through manufacturing simulation exercises. Competency and performance based assessments will include pre and post testing to determine competency level, demonstration of mastery level understanding through performing course/model capstone hands on labs, and potential enrollment in modules necessary for upgrading of skills and competencies. Portfolio reviews will be used on a limited basis for students that have had formal, non-credit or not-for-credit training and/or sustentative related experience, such as those exiting the military. Preliminary competency based assessments that have been identified include NCCER, AWS, and KeyTrain.

Once an individual's readiness level is determined based on these assessments, the students will receive an individualized educational plan. The IEP for those not demonstrating adequate skill levels will work with student services to design a pathway that will allow them to acquire the skill levels needed to successfully complete the certificated programs. Those who demonstrate required competency will also complete an IEP that will allow them to move directly into the postsecondary education/technical training component of the program and complete their education in a timely manner.

Comprehensive Orientation Course – All first-year program participants will enroll in a comprehensive orientation course that teaches academic excellence skills and professionalism. The course

will cover subjects such as test taking, math anxiety, time management, career success, reading and study skills, and other topics intended to assist students' success.

Career Pathways Planning – TAA-eligible and adult workers will use the NCRC Career Ready 101 system with embedded O*NET, or similar, computer-based career interest and skills inventory and conduct research into local growth industries, advanced manufacturing professional occupations and post-secondary education options. This Career Pathways Planning will help students develop a strategy for educational and professional growth beyond basic skills attainment and ensure interest in the targeted industry.

College Readiness, Remedial and Transition Activities – This element will introduce students to the post-secondary academic/technical training environment while improving their foundational skills level and/or studying to earn industry recognized certifications. If transitional support is needed, referrals to additional remedial services (i.e., Adult Basic Education and English Learner) and wrap-around support (i.e., childcare, transportation, tutoring, and financial assistance for course supplies and materials) will also be offered through partnering organizations, as needed. Students will visit college classes during a designated "College Student for a Day," and attend financial aid and college orientation workshops.

Exposure to Advanced Manufacturing Career Options – IERTC will provide opportunities for participants and faculty to be exposed to advanced manufacturing career occupations through contacts with industry partners, field trips, career fairs and internship opportunities. Program participants will be encouraged to attend one or more outreach activities per year. This direct contact will give the TAA-eligible and adult workers an awareness of the kinds of professions they may choose to enter and an opportunity to talk directly with successful role model professionals in their work environments.

Contextualized Classroom Instruction – IERTC classrooms will be highly collaborative and active learning environments where TAA-eligible and other adult workers discover and practice key concepts and professional skills focused on advanced manufacturing. Rigorous course content will

emphasize developing reading, writing, and math skills. Student-directed, inquiry-based instruction will address individual student needs and incorporate a range of assessments, from learning portfolios to standardized tests.

Centralized Student Study Center – IERTC will secure a location at the new proposed IERTC SEBI Center to serve as a centralized Student Study Center that will become the hub for study and special activities outlined throughout this proposal and Work Plan. Participants will access a dedicated computer lab with appropriate software to provide drill and practice in a variety of subjects, to include, but not limited to: Math, NCRC Career Ready 101 and KeyTrain, sciences, and other topics related to advanced manufacturing. This center will also offer a centralized location for students to interact with their peers, instructors, and industry partners who support their aspirations to become advanced manufacturing professionals.

Job Preparation – One of the main activities that support this component is the hiring of a Project Coordinator. This individual will also serve as the critical link between local Workforce Investment agencies, secondary, postsecondary and industry partners to develop mentorships, internships, and work experience programs in advanced manufacturing for program participants. The Project Coordinator will also be responsible for developing workshops and mock job fairs, where students will learn how to find part-time and summer employment, explore corporate culture, and improve resume writing and interviewing skills.

Identification of the specific programs that will be competency-based - Specific career pathway programs that will be competency-based include: Industrial Maintenance Mechanic, Industrial Maintenance Electrical and Instrumentation, Electrician, Millwright, Safety, Welding and Machinist. Each program uses NCCER, AWS, NIMS, OSHA, or similar industry standardized and/or nationally recognized curricula. Each module requires successful completion of a written test with a minimum score of 70%. Over 95% of the modules in each level require successful completion of a competency based performance hands-on test.

Identification of modularized curricula that will be developed or enhanced - The region will develop, through the Developing A Curriculum (DACUM) process, an industry accepted Work Readiness modularized curricula and certification that industry will eagerly accept and will be embedded in programs offered through this funding. It is anticipated there will be a minimum of 7-10 modules in this curricula such as Time Management, Attitude in the workplace, Team Building, etc. Currently, many of the existing curricula being used in this region are generic and do not have consistent approval and acceptance by industry. By involving industry partners directly in the development of the curricula employers will be assured that new hires or existing workers have the soft skills they are demanding.

Plan to incorporate a series of interconnected credentials - Educational programs and credentials will be "stackable" meaning once a student completes one course program, they will be poised to "stack" or add additional complimentary programs leading to an industry recognized credential. IERTC envisions the granting of credentials will be aligned with the National Association of Manufacturers' (NAM), Institute for Manufacturing. The nationally certified credentials identified as appropriate and applicable to this project include: 1) ACT-National Career Readiness Certificate, foundational and soft skills; 2) NIMS-Machine trades, CNC and other metal working certifications; 3) MSSC-Basic manufacturing in: Production, Safety, Quality and Maintenance; 4) NCCER-Industrial Maintenance, Electrical, Instrumentation, Mechanical and Welding; 5) AWS-welding skills; and 6) OSHA-General Industry 10 and 30 hour certifications, NFPA 70E certification.

By establishing stackable certificates (less than 12 units), colleges can give students a shorter pathway to complete. For example, Barstow Community College's (BCC) Industrial Maintenance Electrical and Instrumentation Level I stackable certificate and Level II stackable certificate will fold into their Certificate of Achievement and Associate degree. This gives the student a more manageable approach to getting their degree. BCC stackable certificates are aligned with NCCER's nationally recognized industry certification. The lattice program design allows student to take entry level skills such as NCCER that are the

same or closely aligned to begin to build a solid base. As they progress in the classroom or on the job, students may discover that they want to look at a different trade. Since the first couple of levels/stackable certificates are closely related they can change to the new trade and reduce credit loss. A diagram of this Stackable Certificates model has been included in the attachment section of this application.

As part of this proposal, IERTC will work to align programs across various colleges so students can transfer stackable certificates and credit to colleges across the state and region. IERTC will develop and/or expand conjoined programs where one college may have one stackable certificate and another has a different stackable certificate based on their strengths. This will reduce the need for each college to have a complete pathway housed at a single institution; thus fulfill the request from industry and achieve economies of scale throughout the region.

Explanation of how employers and/or industry associations will be involved - Local and regional employers will partner with colleges to identify and/or develop courses and programs grouped by specific clusters so that many courses will have lateral articulation. This will allow for replicated programs organized per (TOP Code) so that smaller or rural colleges that do not have major laboratories can co-enroll students in IERTC courses to gain complete credit. Employers will also work with consortium colleges on developing a selection and approval process for which National Certifications will be used in the region. This will ensure horizontal articulation meeting regional and state industry needs.

Plan for supporting the transferability and articulation - IERTC Project will identify and support Lead Colleges based on their existing leadership and specialized technical skills area focus in the region. These colleges include: Norco College, Chaffey College, College of the Desert and San Bernardino Valley College. Lead Colleges will help to develop courses and programs in partner colleges and gain agreement on specific course requirements to achieve lateral articulation. A goal of articulation is to achieve replicated programs per topic (TOP Code) such that smaller or rural colleges that do not have major laboratories can co-enroll their students in courses in a Lead College to capture complete credit.

Lead Colleges will also work on approving/choosing which national certifications to use in selected programs to create horizontal articulation that meets the need of industry partners. This articulation also creates a learning environment where students can take and complete whole programs (usually degrees) without waiting for their particular college to offer all courses in a sequence. Through economies of scale, pulling from a larger population will allow a college to offer upper level technical courses with less risk of cancelation due to low enrollment. Programs and courses can be shortened to 9 weeks or even weekends so that a student that lives in a different college district can attend. In addition, colleges will offer blended/hybrid courses – online with occasional on-campus workshops (Fridays or Saturdays) to allow distant students to attend.

Finally, Lead Colleges will also apply for Chancellor Office approval of horizontal articulation and host faculty seminar/workshops to educate staff and faculty on how to cross fertilize programs by adding the strengths of other colleges to their programs. As a tangible result of systemic change, instead of competing with one another for potential job placements, colleges will expand industry support for work-based training, paid and unpaid internships and job placements for all graduates.

(c) Advanced Online and Technology-Enabled Learning

Incorporation of Technology into Program Design and Delivery; and Plan builds on or furthers the innovation in technology-enabled learning - IERTC will blend e-learning and hands-on learning, using physical training and virtual practical exercises on laboratory computers. In addition, IERTC will use the most current equipment, computers and simulators to train students in a setting that mimics industry conditions and develops current and relevant skills. Heavy-duty, industry-standard components, including CNC Machines, SMC Simulators, manual machines and a range of component types will prepare students to use a wide range of technologies. Since the SEBI Center is located on California Steel Industries' campus in the midst of the manufacturing hub, students who access industry technology can participate in internships, job shadowing and mentoring by seasoned craftsmen.

IERTC will use an agreed upon curriculum across the region, such as Amatrol, which incorporates Integrated Systems Technology (IST). Each topic starts with basic concepts and progressively leads the student into a layered learning process of increasing depth. Students will start their learning process using their own computer at home or in IERTC SEBI Center's computer lab. They will transition from learning general theory to using a simulator application on the computer. The combination of online and simulation computer-based learning, repetition, active problem solving and self-reviews will provide feedback to students to build confidence in the skills they develop. Expert instructors skilled in each of the disciplines will reinforce skills and theory.

In addition, as outlined on above on page 15, IERTC will implement closed-circuit classroom and technical laboratory training at the SEBI Center in partnership with individual Community Colleges. Through this technology, students will access classroom instruction via real-time broadcasts via closed-circuit television allowing students to access high quality curriculum and instruction without having to commute long distances for weekly/daily classes.

IERTC will use open source online math tutorials to help students increase their math skills. Students will be able to access lessons from home to reinforce what they learned inside the classroom. Expert instructors skilled in each of the disciplines will then reinforce skills and theory.

One new significant proposed technology application is the development of a student-industry-college information and communication web portal. IERTC will coordinate this effort with the existing California Community College Chancellor's Office Launch Board System, to avoid duplicate efforts. This student friendly portal will provide a direct link between students, industry partners, colleges and faculty. The portal will include links to critical information, such as: specific pathway information, course schedules, online course information, manufacturing student chat rooms, program administrative services, online learning resources and tutoring, industry employment opportunity/wage snapshots, and opportunities to

provide feedback on program improvement. IERTC is committed to sharing information, ideas and curricula with other institutions and will create a Creative Commons license for any materials developed.

(d) Strategic Alignment with the Workforce System and other Stakeholders

Coordination with Governor's Economic Development and WIOA-WP plans - IERTC is aligned with the state's current Economic Development Plan and WIOA-WP integrated state workforce plan, which identifies reinvigorating the manufacturing base as a priority. Further, IERTC connects to the California Economic Summit, which develops a shared agenda for statewide prosperity, through the work of the Inland Empire Economic Partnership as outlined in their letter of support. IERTC also directly aligns with the state's workforce goals of increasing and strengthening: State, regional, and local partnerships between the education, workforce, and economic development systems; career technical and vocational education at all levels of education; collaboration between local workforce investment boards and postsecondary institutions to address training needs that support regional economies; and Industry sector strategies to support the goals of regional industry clusters, high-growth, and high-wage industries while advancing the goals of low-skilled, low-wage workers.

Coordination with the Public Workforce System - Representation is present at the state and local levels to ensure articulation across all levels of government and education. San Bernardino and Riverside County Supervisors and Workforce Investment Boards have developed specific strategies to bring economic strength and stability to the region in response to the above average population growth and exponential job expansion, including the SB County-wide Vision and comprehensive economic development strategy from cradle to career. Representation from the each county's workforce system is established within the IERTC collaborative, as evidenced in the attached Letters of Support and proven through examples such as the collaboration through the newly awarded Workforce Accelerator innovation grant to Chaffey College from the CA WIB. As partner members, these agencies have committed to the following: referring appropriate candidates to TAACCCT programs for education and training; co-enrolling

TAACCCT participants into Workforce Investment Act (WIOA) Title I programs, where appropriate; providing support services in a leveraged and coordinated manner with the community college, through WIOA; working with successful applicants for TAACCCT programs to ensure that proposed Programs of Study qualify for inclusion on appropriate eligible training provider lists; evaluating the current industry sector approach to ensure targets are in current and future economic growth sectors; strengthening employer engagement through industry alliances in the targeted industries; and maintaining and growing the market share of businesses accessing workforce services. Further, as a member of the state system, the local EDD TAA Program Representative will identify and refer eligible adults to IERTC programs.

Through the guidance of California's TAA state coordinator, IERTC will work with local TAA division coordinators to arrange program orientations and recruitments to ensure trade affected and dislocated workers are given the opportunity to learn about and enroll in the IERTC consortium TAACCCT program. Due to the aforementioned support, the IE region is fertile ground for cultivating innovative and results driven programs.

Coordination with Philanthropic Organizations, Business-related and Other Organizations

The extensive collaboration and support of the community is an essential part of the program design. Because this community has joined together to assess its collective needs over an extended period, IERTC now has a vast source of data and information related to what stakeholders want and need in order to operate as collaborating and knowledgeable partners in a healthy shared environment. The strength of the IERTC lies in the willingness of each partner to translate verbal commitments into action. Table 8 outlines commitments that were secured to help leverage resources and address barriers to employment:

Table 8: Collaborative Support

Collaborative Partner	Commitment
Baldy View ROP; San Bernardino County ROP; Riverside	Adopt and implement proved curriculum responsive to industry need; Design and implement effective teaching methodologies and strategies to enhance training outcomes to the diverse population identified in this grant; Facilitate job placement, internships and/or job-shadowing experiences for participants; Design an efficient and effective evaluation strategy; Actively participate in the IERTC Advisory Committee; Feed qualified referrals into the training program; Provide space for staff to meet with participants, conduct workshops, etc.; Participate in recruitment activities, career days, college

County ROP; and CRY-ROP	fairs, and other events where eligible participants may be recruited from the K-12 population; Attend advisory committee and collaborative meetings to assess participants need, determine appropriate service and provide referral; Speak at meetings to promote the program; and Provide workshops on employability skills, academic and career choices, or other relevant topic.
Goodwill Foundation	Provide education, training, work experience, and job placement services to disadvantaged populations. Chaffey College has successfully partnered with this organization in providing entry-level Construction Trades and Technician training to its clients. Hence, the collaboration and partnership is in place and primed to take on another project.
CAP Program	Provide residents throughout the region the ability to access resources, technology and community services through a variety of classes, seminars, training and collaborative meetings of various nonprofit organizations (i.e., food, clothing, transportation assistance and other basic living resources).

Formal Letters of Support are included as attachments to this proposal

(e) Alignment with Previously-Funded TAACCCT Projects

IERTC has secured the commitment of MiraCosta College, a round three TAA grant recipient, to serve as a TAA Project Mentor. Further, as a funded Consortium member of this proposal, resources will be used to help expand existing TAA efforts lead by MiraCosta College in neighboring San Diego County.

Finally, IERTC will contact additional successful first through third round TAA grantees in advanced manufacturing to learn and align best practices. The Project Manager and Project Coordinator will collaborate with grantees by sharing information, decreasing duplication when successful methods and/or materials are available, and by working together to share course and program content. IERTC will share project information online and through conference presentations and published work.

(f) Sector Strategies and Employer Engagement

Sector Identification - The IERTC has a primary focus on the Advanced Manufacturing Industry Sector. Following the California Community College's Chancellor's Doing What Matters for Jobs and Economy initiative, the Project Manager will work collaboratively with a network comprised of the statewide Sector Navigator, the Inland/Desert Deputy Sector Navigator-Advanced Manufacturing (DSN) and other regional Deputy Navigators within the advanced manufacturing sector and other key stakeholders within the IE to ensure synergy alignment with regional and state sector strategies. Existing regional advanced manufacturing sector strategies that IERTC will help bring to scale include: Statewide Collaboration; Adoption of Best Practices; and Accountability-based Performance. The project is designed to align with these strategies and will use real-time labor market information to implement all program components.

Local employer involvement is strong with several key partners who participate in MCIE, including: Ashley Furniture; Brithinee Electric; California Quality Plastics; California Steel Industries; Cott Beverages; Horizon Hobby; Michaels; Nestle Waters, North America; Niagara Water; Penn Emblem; Packing Corp; Safariland; Southern California Edison; Spray-Tech; Steelscape; Total Resources International; Ventura Foods; TST and Vista Metals. With funding in place, an agreed upon Regional Industry Representative(s) from one of these industry partners will be selected. In addition, the Deputy Sector Navigator for Advanced Manufacturing of the Desert/Inland Region will co-facilitate all committee meetings and may also serve as an agreed upon Regional Industry Representative.

Evidence of strong existing sector strategies that integrates workforce development into a comprehensive regional development strategy - The Inland Empire has been recognized for their innovation in workforce development in the Advanced Manufacturing sector by the California Community College's Chancellor's Office, California Workforce Investment Board and most recently by the California Manufacturers & Technology Association. Two of the members of the Manufacturers Council of the Inland Empire, California Steel Industries and Vista Metals, both located in Fontana California, were named Champions of Manufacturing at a statewide summit held June 18, 2014. They were recognized for their collaboration with community colleges and workforce development agencies for their continual support of developing and implementing effective and efficient workforce development programs.

Further, the region was recognized in the January 2012 US Government Accountability Office (GAO) Report to Congressional Committees for its innovative approach to serving business through its process improvement program. The Manufacturing Sector Layoff Aversion and Business Assistance Initiative program utilized federal funds to assist local businesses with job creation and retention. Many of the programs developed and implemented would not have been successful without the engagement of business in local workforce decisions. The program resulted in saving 1,106 jobs, created 204 new jobs and infused \$25 million back into the local economy. Further, the region was recognized for its work with

the vocational school, Technical Employment Training Incorporated (TET), to develop a work-based training program to provide skilled machinists for the manufacturing industry

Employer and Industry Representative Engagement; and Additional Role(s) of Employers -

As indicated throughout this application, the IERTC places great value on the deep involvement of industry partners. In addition to serving on the project's Advisory Committee, employers will be used to support research on skills and duties, review and help finalize the educational competencies developed, collaborate on educational web portal development for companies' students/employees, and provide subject matter experts for value stream mapping improvement strategies at regional colleges. Employers will support research on needed skills and responsibilities, review and help finalize educational competencies that need to be developed, and beta test curricula and assessments at the new IERTC SEBI Center. IERTC has worked closely over the past 10 years with MCIE and other employers in the region who are dedicated to the economic development and workforce preparation of the region. IERTC will continue to nurture these relationships to sustain efforts throughout the duration of the program and beyond.

Evidence of employer commitment is outlined in the attached Letters of Support and includes the following additional roles: serving on the project's leadership team; identifying a regional industry representative(s) to work with the consortium to help establish effective sector strategies; incorporating IERTC graduates into recruitment and placement strategies; providing technical assistance to align the work-based learning model with the pathways identified by the consortia, in order to promote the adoption of academic credit for competencies attained on the job; assisting the consortia in developing an employer engagement outreach strategy and work plan for employers to deliver the work-based instruction, including supervisor training and related activities; assisting in the implementation of program strategies and goals; assisting with curriculum development, program design, and subsequent implementation of program design; and providing resources to support education/training (i.e. equipment, facilities, and, instructors).

(g) PROJECT WORKPLAN

STRATEGY/OBJECTIVE No. 1: Identify and Address Skills Gaps by Building Programs that Meet Industry Needs (Strategy Est. @ \$8,988,170)				
Activities	Deliverables	Performance Outcomes	Timelines	Implementers
1.1 Design, develop and introduce new or revise existing certificate programs to meet industry specific needs.	<ul style="list-style-type: none"> New certificate and syllabi/curriculum that includes industrial maintenance, cybersecurity, quality assurance, and six sigma. Revised certificate and syllabi/curriculum that includes HVAC, building inspection technology, construction management, automation, cybersecurity, welding, CNC, engineering technology, manufacturing engineering, electrical engineering, civil engineering. Increase new or revised certificate program completers. Strengthen technical skills on machine tool types through the use of lathe, routing and molding equipment. Create a "design-tool-manufacture" loop through the fabrication of projects using CAD designs and prototypes on 3D printers and CNC machines. Implement short-term, stackable certificates with embedded industry certifications. 	<ul style="list-style-type: none"> A minimum of 4 new certificate programs developed A minimum of 8 existing certificates revised to meet identified industry needs Overall program completers increased by 10% Students demonstrated positive gains in technical skills from pre-assessment to post-assessment by 80% The design-tool-manufacture loop implemented 6 new stackable certificate programs approved at the local level; 3 new Certificate of Achievement and Associate degrees approved by the Chancellor's office 	Year 1 Identify Year 2-3 Implement Year 2-4 Track Success	BCC, CC, CHC, COD, MCC, MSJC, NC, RCC, SBVC, UCR, VVC
1.2 Hire additional instructors and support staff.	<ul style="list-style-type: none"> Interim IERTC Project Manager will be hired until the permanent staff is in place. Faculty and staff will be hired to support development and teaching of programs. 	<ul style="list-style-type: none"> Interim Manager hired A 100% FTE Project Manager, a 100% FTE Project Coordinator, a 100% FTE Lead Data Manager, a 100% FTE Accounting Tech, a 100% FTE Administrative Assistant hired for IERTC SEBI Center A of 3 faculty hired A minimum of 10 adjunct faculty hired 	Oct 2014 Interim Manager January 2015 All staff	BCC, CC, CHC, COD, MCC, MSJC, NC, RCC, SBVC, VVC
1.3 Perform skills gap analysis as a region and disseminate information to appropriate stakeholders.	<ul style="list-style-type: none"> Host annual skills panel and industry advisory meetings to develop strategies to overcome skill gaps. Include workforce skills such as efficiency management in new credit/non-credit/not-for-credit courses. 	<ul style="list-style-type: none"> A minimum of 1 skills panels held throughout the region A minimum of 2 advisory meetings held each year Students demonstrated positive gains in workforce skills by 50% 	Year 1, 2 & 3	BCC, CC, CHC, COD, CSUSB, MCC, MSJC, NC, RCC, SBVC, UCR, VVC
1.4 Provide students and trainees with nationally recognized industry certifications.	<ul style="list-style-type: none"> Determine and select at least 3 nationally recognized certificate programs related to advanced manufacturing. Align certificates with industry standards including but not limited to: ACT, NIMS, MSSC, NCCER, AWS, and OSHA. 	<ul style="list-style-type: none"> At least two Instructor Certification Training Program (ICTP) sessions held to certify faculty to provide nationally recognized industry certification 	Year 1 Identify Year 2-3 Implement Year 2-4 Track Success	BCC, CC, CHC, COD, MCC, MSJC, NC, RCC, SBVC, VVC
1.5 Purchase manufacturing equipment for IERTC SEBI Center.	<ul style="list-style-type: none"> Determine needs of training programs and purchase equipment accordingly. 	<ul style="list-style-type: none"> Required equipment purchased 	Year 1	BCC, CC, CHC, COD, MCC, MSJC, NC, RCC, SBVC, VVC

1.6 Purchase furniture, fixtures, and equipment (FFE) for SEBI Center.	<ul style="list-style-type: none"> Determine needs of training classroom space and purchase FFE accordingly. 	<ul style="list-style-type: none"> Required FFE purchased 	Year 1	BCC, CC, CHC, COD, MCC, MSJC, NC, RCC, SBVC, VVC
1.7 Assemble Expert Review Team (ERT).	<ul style="list-style-type: none"> ERT will be members of the Advisory Committee and Project Leadership to guide continuous program improvement. They will conduct a formal review of all grant deliverables and outcome data including student employment outcomes. 	<ul style="list-style-type: none"> Quarterly report provided to all stakeholders 	Year 1 Formed Year 2-4 Review Data	IERTC Committee ERT Committee
1.8 Design, develop and introduce new pre-engineering program and BS in engineering.	<ul style="list-style-type: none"> New syllabi/curriculum for the pre-engineering program at MiraCosta College aligned with the new Engineering BS at Cal State University, San Marcos. MiraCosta Community Services, MiraCosta Pre-Engineering faculty, CSUSM Physics Dept. faculty, and the Project Director of CSUSM Extended Studies to meet with industry. Create articulation agreements between local high schools, MCC and CSUSM in engineering. 	<ul style="list-style-type: none"> At least 15 students enrolled in CSUSM engineering program by completion of the grant with transfers from MiraCosta Tests designed for students moving from MCC's Engineering Tech program to CSUSM's BS program Articulation agreements with at least 3 high schools in engineering 	Year 1 Identify Year 2-3 Implement Year 2-4 Track Success	MCC with CSUSM
1.9 Evaluate the targeted industry sector to ensure targets are aligned with current and future regional economic growth.	<ul style="list-style-type: none"> Meet the workforce needs of regional economies and high demand industry sectors with the best potential for new jobs. Assisting the IERTC in reaching out to employers to build support for the TAACCT program. 	<ul style="list-style-type: none"> 50% of businesses received required services to remain in business and hire employees Positive gains shown through employer engagement with new and existing industry alliances 	Year 1, 2, & 3	Riverside County WIB and San Bernardino County WIB along with IERTC Advisory Board
1.10 Provide comprehensive training in the area of entrepreneurship and business ownership skills.	<ul style="list-style-type: none"> Entrepreneurs' boot camp certificate program for 8 weeks, 32 hours to better understand the process of developing and launching a new venture. 	<ul style="list-style-type: none"> 60 participants in the IECE certificate program 	Year 1, 2, & 3	CSUSB

STRATEGY OBJECTIVE No. 2: Accelerate and Improve Certification and Employment Attainment (Strategy Est. @ \$2,498,028)				
Activities	Deliverables	Performance Outcomes	Timelines	Implementers
2.1 Develop standard practices to award credit for prior learning and/or non-credit/not-for-credit training.	<ul style="list-style-type: none"> Create a 'challenge test' award of prior credit to candidates in order to receive credit for previous not-for-credit training, apprenticeship training or military experience. Become an accredited assessment center for NCCER and AWS. Work with Veteran's Services counselors to review. 	<ul style="list-style-type: none"> A college credit mechanism created, e.g. credit by exam, to provide credit for prior experience and learning Give credit based on Service members' Opportunity College 	Year 1 Establish Year 2-3 Provide	BCC, CC, COD, MCC, MSJC, NC, RCC, SBVC, VVC
2.2 Contextualize academics into foundational courses or provide concurrent technical and academic courses.	<ul style="list-style-type: none"> Embed industry certification for manufacturing. Develop curriculum and instructional strategies that include a central context for learning and help students attain work readiness skills by embedding math, reading, and soft skills in curriculum. Provide concurrent enrollment for K-12 students. 	<ul style="list-style-type: none"> Industry certification in a minimum of 4 courses Contextualize at least 4 courses with work readiness skills Schedule a minimum of 8 concurrent courses 	Year 1 Establish Year 2-3 Provide	BCC, CC, CHC, COD, MCC, MSJC, NC, RCC, SBVC, VVC

<p>2.3 Provide intensive student services to include tutorial supports, retention counseling, and job coaches to assist in career planning, stacking credentials, and securing financial aid.</p>	<ul style="list-style-type: none"> • Student participants will be recruited, assessed, placed in appropriate classes, and counseled regarding the development of an education and career plan. • Tutoring and student service workshops will be provided through cooperation with colleges' student services organizations. • Provide students with job coaches to assist in job attainment and retention. • Transition students completing the CSUSB IECE entrepreneurial training program to the Small Business Development Center (SBDC) and Women's Business Center (WBC) programs to receive on going mentoring and counseling. • Develop and implement various schedules that will provide accelerated pathways. • Utilize regional and outside content experts to work with faculty to develop and implement short-term, stackable certificates and/or certification/licensure preparation workshops. • Actively engage employers in the targeted industry sectors regarding the skill requirements for employment or career progression in high demand occupations and format these skill sets into manageable modules. 	<ul style="list-style-type: none"> • While attending the first module, 100% of the students completed an Individual Education Plan • 60% of first cohort successfully met their goals • Students demonstrated positive gains in job attainment • A majority of participants in the Certificate in Entrepreneurship accessed counseling after the program 	<p>Year 2-3 Provide</p>	<p>BCC, CC, COD, CSUSB, MCC, MSJC, NC, RCC, SBVC, VVC</p>
<p>2.4 Introduce flexible schedules and curricular structures, modularize, chunking, 4-, 8-, 12-, 16-week formats.</p>	<ul style="list-style-type: none"> • Develop and implement various schedules that will provide accelerated pathways. • Utilize regional and outside content experts to work with faculty to develop and implement short-term, stackable certificates and/or certification/licensure preparation workshops. • Actively engage employers in the targeted industry sectors regarding the skill requirements for employment or career progression in high demand occupations and format these skill sets into manageable modules. 	<ul style="list-style-type: none"> • A minimum of 6 courses scheduled in an accelerated format • Certificates sequenced, approved and awarded • Award at least 10 stackable credentials that have regional and industry certification • Pathways show lattice toward industry recognized credentials 	<p>Year 1 Establish & Approve Year 2-3 Award Certificates</p>	<p>BCC, CC, COD, MCC, MSJC, NC, RCC, SBVC, UCR, VVC</p>
<p>2.5 Profile program curricula skill levels and align with occupational profile skill levels. Assess students through NCRG+ or equivalent to determine whether capable to access the curriculum or if remediation is needed.</p>	<ul style="list-style-type: none"> • Identify skills and tasks required by convening industry partners and technicians. • Use competency models to show minimum entry level competencies and assess skills using online programs. 	<ul style="list-style-type: none"> • Industry verified task list completed • All entering students are pre-assessed to determine curricula skill levels 	<p>End of Year 1 Year 1, 2 & 3 for 6 months</p>	<p>BCC, CC, COD, MCC, MSJC, NC, RCC, SBVC, VVC</p>
<p>2.6 Develop/introduce soft skills curriculum and embed in technical skills training. Certify soft skills through NCRG+ or equivalent.</p>	<ul style="list-style-type: none"> • Embed soft skills in course work. 	<ul style="list-style-type: none"> • At least 12 soft skills training sections held or embedded in at least 6 courses 	<p>Year 2-3</p>	<p>BCC, CC, COD, MCC, MSJC, NC, RCC, SBVC, VVC</p>
<p>2.7 Enhance partnerships with the public workforce system and employer groups.</p>	<ul style="list-style-type: none"> • Hold industry advisory board meetings to identify industry-recognized degrees and credentials. • Continue to work with regional and statewide WIBs, EDD, and other partners. 	<ul style="list-style-type: none"> • A minimum of 2 meetings held of the advisory board • Attend at least 3 WIB meetings 	<p>Annually</p>	<p>BCC, CC, CHC, COD, CSUSB, MCC, MSJC, NC, RCC, SBVC, UCR, VVC Project Manager</p>

<p>2.8 Create a media campaign specifically marketed at TAA-eligible workers highlighting the availability of services throughout the region.</p>	<ul style="list-style-type: none"> Ensure TAA-eligible workers are served through a targeted marketing campaign highlighting the availability of services throughout the region. 	<ul style="list-style-type: none"> Print and non-print PR/Marketing materials developed with copies kept on file and records kept of # of materials disseminated and list of locations Website developed & implemented 	<p>Year 1-2</p>	<p>BCC, CC, CHC, COD, CSUSB, MCC, MSJC, NC, RCC, SBVC, UCR, VVC Project Manager</p>
<p>2.9 Develop a robust recruitment plan.</p>	<ul style="list-style-type: none"> Incorporate specific recruitment strategies and measures to serve TAA-eligible workers, veterans and traditionally underserved populations. 	<ul style="list-style-type: none"> Recruitment strategies established and effective by increasing enrollees by 10% 	<p>Year 1 Establish Year 2-3 Implement</p>	<p>BCC, CC, COD, MCC, MSJC, NC, RCC, SBVC, VVC Project Manager</p>

STRATEGY/OBJECTIVE No. 3: Enhance Articulated Career Pathway Options for Learners and Workers (Strategy Est @ \$749,014)

Activities	Deliverables	Performance Outcomes	Timelines	Implementers
<p>3.1 Implement strategies using articulated career pathways and a system of stackable credentials.</p>	<ul style="list-style-type: none"> Assemble a Career Pathway Team with representation from multiple stakeholders. 	<p>4 new stackable certificates developed</p>	<p>Year 1</p>	<p>BCC, CC, CHC, COD, MCC, MSJC, NC, RCC, SBVC, UCR, VVC</p>
<p>3.2 Develop new articulation/concurrent enrollment agreements for credit-based certificates between K-12, CC, & 4-yr institutions.</p>	<ul style="list-style-type: none"> Articulation agreement with high schools in advanced manufacturing, facilities management, engineering, automated warehousing, cybersecurity, quality assurance, industrial maintenance, machining & welding. Link UCR extension and K-14 partners with the possibility of establishing articulation agreements 	<p>A minimum of 7 new articulation agreements completed</p>	<p>Year 1-3</p>	<p>BCC, CC, CHC, COD, MCC, MSJC, NC, RCC, SBVC, UCR, VVC</p>
<p>3.3 Review noncredit /not-for-credit certificate programs to see if they meet the criteria to transition into credit certificates.</p>	<ul style="list-style-type: none"> Make recommendations to transfer noncredit certificates into credit based certificates. 	<p>A minimum of 3 contract programs are converted to credit programs</p>	<p>Year 2</p>	<p>BCC, CC</p>
<p>3.4 Expand/create K-16 career pathways tied to industry certifications.</p>	<ul style="list-style-type: none"> Align K-16 pathways with postsecondary certificates and pathways and expand existing outreach to parents and community regarding 2+2+2 pathways. 	<p>A minimum of 2 new pathways aligned</p>	<p>Year 1-2</p>	<p>BCC, CC, CHC, COD, MCC, MSJC, NC, RCC, SBVC, UCR, VVC</p>

STRATEGY/OBJECTIVE No. 4: Strengthen Teaching which includes Innovative Advanced Online and Technology-Enhanced Alternative Training Methods to Meet Industry and Individuals Training Needs (Strategy Est. @ \$749,015)				
Activities	Deliverables	Performance Outcomes	Timelines	Implementers
4.1 Develop and implement online, open-access, hybrid, portable and/or short-term delivery methods for new and existing courses to accelerate time-to-completion rates for diverse student populations.	<ul style="list-style-type: none"> Approve schedule of course offerings aligned with objective. Non-credit certificate programs including OSHA, Cal CERTS, EPA or NABCEP created. Implement advanced online format, asynchronous collaboration and alternative training methods through the use of online curriculum such as Tooling University for courses like Cisco networking, quality assurance and engineering technician. Implement training programs at the SEBI center aligned to both industry and individuals need. 	<ul style="list-style-type: none"> Student enrollment and success increased by 10% through use of advanced online training methods A minimum of 3 online non-credit certificate programs created A minimum of 2 certificate programs utilizing asynchronous collaboration created Customized training provided to a minimum of 50 incumbent/unemployed workers 	<p>End of Year 1</p> <p>Year 1-3</p> <p>Year 1-3</p>	<p>BCC, CC, COD, MCC, NC, RCC, SBVC, VVC</p> <p>BCC, CC, COD, NC, RCC, SBVC, VVC</p>
4.2 Focus on workforce development activities that will enable incumbent/unemployed workers to become more competitive in the regional labor market.	<ul style="list-style-type: none"> Expert review team will be identified and trained. 	<ul style="list-style-type: none"> Performance outcomes for all participants documented and evaluated 	Year 2-4	<p>BCC, CC, CHC, COD, MCC, MSJC, NC, RCC, SBVC, UCR, VVC</p> <p>Project Manager ERT Committee</p>
4.3 Analyze program data for continuous improvement and program evaluation.				
4.4 Develop a student-industry-college information and communication web portal to provide a direct link between students, industry partners, and colleges and faculty.	<ul style="list-style-type: none"> Create a student friendly web portal utilizing the existing California Community College Chancellor's Office Launch Board System to link to critical information. 	<ul style="list-style-type: none"> Student-friendly Launch Board platform created and utilized 	<p>Year 1 -2 Created Year 3-4 Utilized</p>	<p>BCC, CC, COD, MCC, MSJC, NC, RCC, SBVC, VVC</p>

STRATEGY/OBJECTIVE No. 5: Facilitate Regional Professional Development Opportunities and Technical Assistance to Support Effective Implementation and Regional Systemic Change (Strategy Est. @ \$1,996,057)				
Activities	Deliverables	Performance Outcomes	Timelines	Implementers
5.1 Deliver training on site at colleges and off-site at SEBI Center consistent with the needs of industry.	<ul style="list-style-type: none"> Provide professional development in best practices on various topics including online and technology-enhanced alternative training methods, Cal-PASS Plus, energy efficiency, HVAC efficiency, automation systems, supply chain technology, machining, cybersecurity, quality assurance & six sigma. 	<ul style="list-style-type: none"> The number of CTE enrollees increased 2% annually 	Year 1-3	<p>BCC, CC, CHC, COD, MCC, MSJC, NC, RCC, SBVC, VVC</p>
5.2 Implement outreach to middle, high school and	<ul style="list-style-type: none"> Provide workshops and technical trainings to inform key staff and collaborative partners. 	<ul style="list-style-type: none"> At least 6 workshops held with documentation available on project website 	Year 1	<p>BCC, CC, CHC, COD, CSUSB,</p>

college instructional staff to provide training and technical support.	<ul style="list-style-type: none"> Disseminate program and pathway information to all regional high schools, college and career counselors. 	<ul style="list-style-type: none"> Outreach efforts documented At least 4 MFG Day events held 	MCC, MSJC, NC, RCC, SBVC, UCR, VVC Project Manager
5.3 Support faculty workgroups to update curriculum and programs with content based on gaps and need in targeted industrial and computer design/manufacturing and engineering programs.	<ul style="list-style-type: none"> Professional development workshops provided by certifying agencies to infuse programs with stackable credentials in programs such as machining and welding. Consult with other manufacturing and engineering departments throughout CA and across the country. 	<ul style="list-style-type: none"> A minimum of 4 workshops held Best practices shared 	BCC, CC, CHC, COD, MCC, MSJC, NC, RCC, SBVC, VVC Project Manager
5.4 Offer facilities tours for students, faculty and staff.	<ul style="list-style-type: none"> Schedule tours of both college facilities, the new regional training SEBI Center, and industry. 	A minimum of 3 tours given	BCC, CC, COD, MCC, MSJC, NC, RCC, SBVC, VVC
5.5 Faculty and staff attend industry-sponsored technical trainings and/or conferences.	<ul style="list-style-type: none"> Develop a list of relevant technical trainings and/or conferences. 	A minimum of 10 faculty and staff attend at least 1 conference/training	BCC, CC, CHC, COD, MCC, MSJC, NC, RCC, SBVC, VVC
5.6 Host a 1-2 day Regional Workforce Development Conference to provide information on industry specific training and resources.	<ul style="list-style-type: none"> Conference will include an industry recognized keynote, breakout sessions, and recordings made available to colleges for dissemination. 	4 regional workforce conferences held	BCC, CC, CHC, COD, CSUSB, MCC, MSJC, NC, RCC, SBVC, UCR, VVC Project Manager
5.7 Provide annual updates concerning Innovation Hub (iHub) activities at University of California, Riverside.	<ul style="list-style-type: none"> Host annual forum to discuss iHUB activities that assists in the development of a skilled workforce 	Increased regional participation in iHUB	BCC, CC, CHC, COD, MCC, MSJC, NC, RCC, SBVC, UCR, VVC

KEY: (Timelines) Year 1 – October 1, 2014 to September 30, 2015; Year 2 – October 1, 2015 to September 30, 2016; Year 3 – October 1, 2016 to September 30, 2017; and Year 4 – October 1, 2017 to September 30, 2018 // (Industry Certs) ACT – National Career Readiness Certificate, foundational and soft skills; NIMS – Machine trades, CNC – many other metal working certifications; MSSC – Basic manufacturing in: Production, Safety, Quality and Maintenance; NCCER – Industrial Maintenance, Electrical, Instrumentation, Mechanical and Welding; AWS – welding skills; IECE – Inland Empire Center for Entrepreneurship; OSHA – General Industry 10 and 30 hour certifications, NFPA 70E certification; Cal CERTS – California energy rating provider; EPA – Environmental Protection Agency; NABCEP – North American Board of Certified Energy Practitioners; NCRC – National Career Readiness Certificate; SEBI – Stern Education and Business Incubation Center; and MFG – Manufacturing Day

3. OUTCOME AND OUTPUTS

(a) Analysis of Outcome Projections

Outcome Projections; Targets; and Balance of Deliverables and Outcomes – See Table 9 below.

Table 9: IERTC Project Outcome Projections

Outcome Measure		Year 1	Year 2	Year 3	Year 4	Total
1	Total Unique Participants Served	237	1083	1269		2,589
2	Total Number of Participants Completing a TAACCCT-Funded Program of Study	87	446	572		1,105
3	Total Participants Still Retained in Their Program of Study or Other TAACCCT-Funded Program	121	385	488		994
4	Total Number of Participants Completing Credit Hours	139	463	626		1,228
5	Total Number of Participants Earning Credentials	106	458	612		1,176
6	Total Participants in Further Education After TAACCCT-Funded Program of Study Completion	42	282	585		909
7	Total Number of Participants Employed After TAACCCT-Funded Program of Study Completion		657	818	257	1,732
8	Total Number of Participants Retained in Employment After Program of Study Completion		548	695	299	1,542
9	Total Number of Those Participants Employed Who Received a Wage Increase Post-Enrollment		415	496	168	1,079

Raw numbers for the outcome measures were calculated based on: experience with grant-funded training for similar populations; college administrative data; employment demand identified through secondary and primary research; capacity of the planned training programs; resource constraints; anticipated higher completion for shorter-term certificate programs; and industry feedback and support.

IERTC deliverables and outcomes are well balanced. The project anticipates serving 2,589 unique students through new or revised programs leading to industry-recognized credentials. Large numbers of unique students can be expected since IERTC will expand training that is accelerated and short term.

(b) System or Process for Tracking and Reporting Outcome Measures

Existing Tracking Procedures - All IERTC community college consortium members currently have access to LaunchBoard, a platform that was developed by the California Community College Chancellor's Office (CCCCO) to collect and report performance outcomes on 34 distinct CTE metrics, including the five mandated performance outcome metrics identified by the U.S. Department of Education. Consistently defined, reliable data sources (e.g., Chancellor's Office Management Information System

(COMIS) data files that are submitted to the CCCCCO by all 112 California community colleges at the end of each semester; Employment Development Department (EDD) files; National Student Clearinghouse (NSC) files; etc.) are predominantly used to populate data into LaunchBoard. However, LaunchBoard also offers a user-friendly interface that affords consortium members the opportunity to enter meaningful performance outcome data (e.g., licensure examination pass rates) and identify and track specific populations (e.g., TAA-workers). LaunchBoard is a secure, web-based application that is supported by California Community College Chancellor's Office staff.

Plan to Address Gaps in Tracking - While LaunchBoard metrics specifically address the five outcomes mandated by the U.S. Department of Education (as well as other valuable metrics that will facilitate informed decision-making and development of actionable strategies by the IERTC advisory committee), IERTC consortium members intend to augment data collection processes and ensure data integrity by staffing each community college consortium member with a Site Data Manager. Site Data Managers will assist member colleges in reviewing and verifying critical data sources (e.g., COMIS files) and oversee entry of other pertinent data elements (e.g., licensure examination pass rates). The Site Data Managers will also function as the coordinators for each college on the CTE Employment Outcomes Survey. Survey results captured through the CTE Employment Outcomes Survey will subsequently be populated into LaunchBoard, providing all participating consortium members with meaningful disaggregated program, institutional, and sub-population specific employment data such as: employment; employment in the same or similar field; wage gain in field; and average annual salary in the same or similar field. While currently a voluntary reporting system, IERTC members are committed to inculcating CTE Employment Outcomes Survey data collection practices into their daily institutional operations and have dedicated funding to make this a reality for all consortium members. IERTC will continue to work with California EDD TAA Office to ensure that eligible TAA-workers served through the grant are appropriately identified and performance in the LaunchBoard metrics are tracked and reported for this and other sub-populations.

(c) Using Data for Continuous Improvement

Plan for Formal Data Reviews - IERTC is committed to the rigorous review of all program deliverables and outcome data. Formal data reviews will occur monthly and/or quarterly as appropriate and findings will be used by the IERTC Advisory Committee and project leadership to guide data-driven decisions for continuous program improvement. The consortium will select members of the existing regional Advisory Committee to form a smaller Expert Review Team (ERT) who will conduct a comprehensive formal review of all grant deliverables and outcome data. IERTC will utilize these industry and academic experts with a range of perspectives to review and comment on all draft reports, publications, and products prepared by project staff and the external evaluator. The ERT will be responsible for ensuring all deliverables are thoroughly reviewed for accuracy, content, and quality prior to their submission to DOL. To this end, the chart below outlines the process IERTC will use to evaluate all program deliverables:

STEP	DESCRIPTION OF FORMAL DATA REVIEW PROCESS FOR CONTINUOUS IMPROVEMENT
1	All draft reports, publications and or products will be delivered to each ERT member with adequate time for independent review
2	A panel discussion will be conducted between the ERT, Project Manager, Project Coordinator, Site Coordinators and external evaluator that will offer the opportunity for expert feedback and group discussion
3	Project team and/or the external evaluator (ICF) will incorporate any changes or modifications recommended by the ERT
4	Project Manager will then disseminate the revised product to the ERT for final approval
5	After the Project Manager and ERT have signed off on the final deliverable, it is transmitted or delivered to the DOL, and if applicable, uploaded for public online access

A rigorous and comprehensive external evaluation will be conducted ICF on the overall effectiveness of the IERTC Project utilizing a comparison cohort study methodology. Details of this design are included in the supplemental materials of this application.

Sustainability Plan - Two major components are essential to developing both short and long term sustainability strategies. These components were used as a preliminary consideration in developing the IERTC sustainability plan, and are as follows: 1) Results Orientation and 2) Broad-based Community and Employer Support. The activities and services that are a part of this responsive training program are designed to sustain positive results for TAA-eligible and other adult workers, as well as, employers. By tracking progress and by proving the effectiveness of this training program the potential to attract new

funding and collaboration is increased. Broad-based community and employer support is foundational to the long-term sustainability of the program. In order to increase the ability to sustain efforts, IERTC will establish a strong identity in the community by: strategic outreach; advertising program accomplishments; involving industry executives in curriculum development activities; and continuing to engage stakeholders in the planning, implementation, and evaluation of program activities. IERTC understands that the power of broad-based community support cannot be underestimated. Through the current and recurring support of the community, IERTC will expand the potential for sustaining the program through local funding and support due to the shared interest in expanding the project objectives.

It is anticipated that once the effectiveness of this program is proven through rigorous assessment, portions of this training program will be sustained through institutionalization at both the consortium college and employer level, as has been demonstrated with other highly effective projects. Existing and future funding streams will also be leveraged (i.e., general operating, Title III, Title IV, NSF, WIOA, TANF, etc.).

4. ORGANIZATIONAL PROFILE

(a) Professional Qualifications of Project Staff

Professional qualifications - Immediately upon funding notification, Chaffey College as the Lead Institution will begin the hiring process to secure a 100% FTE dedicated Project Manager who will provide the day-to-day leadership for the project. Should there be a delay in the hiring process, IERTC will appoint an interim project manager by October 1, 2014 who will serve until the new project manager is hired.

To ensure that performance reporting, fiscal reporting, and procurement are conducted in accordance with grant requirements, IERTC will secure a Project Manager and support staff that possesses the following minimum qualifications:

JAA Support Staff Qualifications
<p>Project Manager - 100% FTE (TBD) - Qualifications: Bachelor's degree in business, education, career technical education, organizational leadership, engineering, industrial arts or technology, or other related discipline (Master's degree preferred); a minimum of one year of formal experience, training, internship, or leadership experience reasonable related to the assignment; five years of higher education experience; at least five years in related industrial experience; experience in managing large projects including budgetary responsibilities; expertise in collaborating effectively with community and state officials on projects related to technical education/workforce development; experience in developing and implementing CTE curriculum in related field; proficiency with Microsoft Office including Word, Excel, Power Point, and Access, and Adobe Acrobat; ability to communicate effectively in person, in writing and in various electronic formats; validated experience working with</p>

multiple constituencies, collaborating with administration, faculty, employers, workforce boards and community-based organizations; and strong technology and communications skills are essential
Project Coordinator - 100% FTE (TBD) - Qualifications: Bachelor's degree in business, education, career technical education, organizational leadership, engineering, industrial arts or technology, or other related discipline (Master's degree preferred); two years of higher education experience; at least five years in related industrial experience; experience in coordinating large projects including budgetary responsibilities; experience in effective marketing strategies; expertise in collaborating effectively with community and state officials on projects related to technical education/workforce development; experience in developing and implementing CTE curriculum in related field; proficiency with Microsoft Office including Word, Excel, Power Point, and Access, and Adobe Acrobat; ability to communicate effectively in person, in writing and various electronic formats; validated experience working with multiple constituencies, collaborating with administration, faculty, employers, workforce boards and community-based organizations; strong technology and communications skills are essential; evidence of commitment to the mission of a comprehensive community college with a rural, non-traditional, multicultural student population
Lead Data Manager - 100% FTE (TBD) - Qualifications: Bachelor's Degree in social behavioral sciences, statistics, or related field (preferably with emphasis on organizational or educational research); knowledge of research and design including standard statistical procedures related to sampling, correlation analysis, projections, instrument design, and qualitative measures applied to educational and social research; one year's experience in applying practical statistical and research methods; one year's experience in working in a college setting including direct contact with faculty, students and administrative staff; and demonstrated ability in using standard statistical software packages.
Accounting Tech - 100% FTE (TBD) - Qualifications: High School diploma or equivalent; minimum of two (2) years increasingly responsible job related experience; and knowledge in accounting/bookkeeping principles, and pertinent computer software applications. Ability to: adapt to changing work priorities; being attentive to detail; communicate with diverse groups; meet deadlines and schedules; set priorities; and work with detailed information/data. Demonstrated skills in operating standard office equipment, using pertinent software applications; performing accounting procedures, and maintaining accurate records.
Administrative Assistant - 100% FTE (TBD) - Qualifications: Any combination of education, training, and experience that provides the required knowledge, skills, and abilities: i.e., completion of high school with responsible secretarial or administrative support experience involving extensive public contact and interfacing with various levels of management. Ability to operate a computer and word processor; familiarity with various software packages; knowledge of general accepted office practices, procedures, and equipment; knowledge of basic arithmetic; and proper English usage, grammar, vocabulary, and spelling; and ability to type 60 WPM.

(b) Management Structures

Dr. Henry Shannon, Superintendent/President of Chaffey College, will be responsible for overall supervision of the project and will be personally involved in order to influence the quality of the project and oversee its impact on achieving institutional goals. He will delegate authority to the Project Manager, who will oversee the Project Coordinator, Lead Data Manager, Accounting Tech and Admin Assistant. The Project Manager's direct supervisor on the project will be the Interim Associate Superintendent of Business Services and Economic Development, Lisa Bailey.

The regions Deputy Sector Navigator-Advanced Manufacturing of the Desert/Inland Region will co-facilitate committee meetings and may serve as one of the agreed upon Regional Industry Representative. Further, each of the 12 consortium members will participate in the Advisory Committee that oversees the strategic direction of the project. These members will be college representatives at the executive leadership level. In addition, each consortium member will have a dedicated Site Coordinator responsible for overseeing the implementation of the IERTC within their college. This staff member will coordinate all

efforts with the Project Manager and Project Coordinator, participate in workgroups, training, and curriculum development, alignment and articulation along with other college personnel as appropriate. Each location will also have a supportive Site Data Manager who will be responsible for maintaining program and participant data at the college level and will work closely with the Expert Review Team and ICF, the projects third-party evaluator. An organizational chart is included in the attachment section of this proposal.

(c) Systems and Processes

Timely and complete reporting practices - Chaffey College has been successful in managing effective educational programs and activities for students since its inception. Chaffey College has a proven track record in successfully administering various state and federal projects (Title III, Title IV, NSF, WIOA, TANF, CalWorks, etc.). Each of these funding sources has required timely and accurate financial and performance reporting requirements that were fully met by Chaffey administrators, staff and grant support teams.

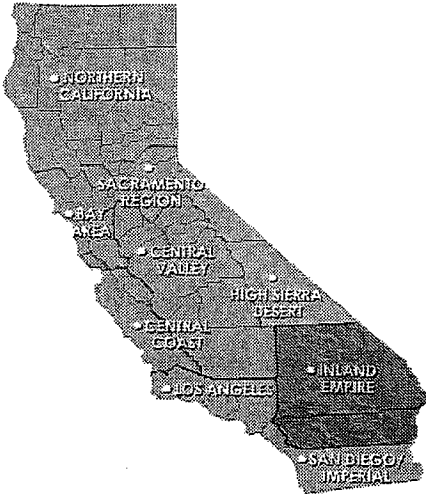
Procurement processes, systems, and procedures - Chaffey College, as the Lead Consortium Member, will assume the responsibility of managing this project within an organizational structure ensuring accountability and performance. Funding expenditures will require the signature of the Project Manager, Vice President or an Associate Superintendent before the district fiscal services will process a requisition. College budget technicians will review all expenditures and transfers to ensure that they comply with grant guidelines and district policies before the Interim Executive Director of Business Services authorizes the transaction.

The Project Manager and/or the Project Coordinator will work directly with consortia Site Coordinators, Data Managers and the external program evaluator for this project to ensure all progress and quarterly reports are submitted in a timely manner. Further, they will be responsible for reviewing all reports prior to submission to ensure accuracy of data and findings. Finally, they will also be responsible for scheduling and facilitating quarterly meetings and an annual strategic planning summit.

(1) Applicant Name: Chaffey College

(2) Applicant City/State: Rancho Cucamonga, CA

(3) Consortium Member(s) and Consortium Member State(s):



Twelve (12) College Consortium Partners of Southern California, Inland Empire Region		
Chaffey Community College	Rancho Cucamonga, CA	\$6,632,881
Norco College	Norco, CA	\$1,410,433
Barstow Community College	Barstow, CA	\$1,155,132
College of the Desert	Palm Desert, CA	\$1,469,805
Mt. San Jacinto Community College	San Jacinto, CA	\$965,590
Victor Valley College	Victorville, CA	\$366,133
San Bernardino Valley Community College	San Bernardino, CA	\$1,249,807
Crafton Hills College	Yucaipa, CA	\$50,000
Riverside City College	Riverside, CA	\$1,130,937
MiraCosta College	Oceanside, CA	\$300,100
CSU, San Bernardino	San Bernardino, CA	\$147,269
UC, Riverside	Riverside, CA	\$102,197

(4) Areas Served by Grant: Rancho Cucamonga, Norco, Barstow, Palm Desert, San Jacinto, Victorville, San Bernardino, Yucaipa, Riverside Cities; San Bernardino and Riverside Counties; California

(5) Total Funding Level Requested: \$14,980,284

(6) Sub-Total Requested Funding Amount by Consortium Member: See Chart above

(7) Project Name: Inland Empire Regional Training Consortium (IERTC)

(8) Project Description and List of Credentials to be Developed and Awarded: The Inland Empire Regional Training Consortium (IERTC) will create the STEM Education Business Incubator (SEBI) Center hosted at California Steel Industries in Fontana that will focus on Advanced Manufacturing Applications.

The IERTC is a regionally coordinated, large-scale effort to develop the highly trained/highly technical workforce necessary to advance industry and the economy of our region. Educational programs and credentials will be "stackable" meaning once a student completes one course program, they will be poised to "stack" or add additional complementary programs leading to an industry recognized credential. We envision the granting of credentials will be aligned with the National Association of Manufacturers' (NAM), Institute for Manufacturing including ACT, NIMS, MSSC, NCCER, AWS and OSHA. Additional delivery

methods include the use of Closed-Circuit Classroom and Technical Laboratory Training, Mobile Training Laboratories and Online Training and Resources. IERTC proposes to implement an advanced integrated career pathway approach that includes multiple entry and exit points with various certificates and degrees. See IERTC Project Design Diagram in the attachment section of this proposal.

(9) Population to be served: TAA-eligible workers, long-term unemployed and veteran populations.

(10) Target Industry(s): Advanced Manufacturing

(11) Employer Partner(s): Manufactures' Council of the Inland Empire representing: Ashley Furniture; Brithinee Electric; California Quality Plastics; California Steel Industries; Cött Beverages; Horizon Hobby; Michaels; Nestle Waters, North America; Niagara Water; Penn Emblem; Packing Corp; Safariland; Southern California Edison; Spray-Tech; Steelscape; Total Resources International; Ventura Foods; TST and Vista Metals

(12) Public Workforce System Partner(s): Riverside County WIB, San Bernardino County WIB, California Workforce Services Division Economic Development Department

(13) Other Key Partner(s): Manufactures' Council of the Inland Empire, Inland Empire Economic Partnership, Alliance for Education, San Bernardino County Superintendent of Schools, Baldy View ROP, San Bernardino County ROP, Riverside County ROP, CRY ROP, Goodwill Foundation, CAP Program, Career Ladders Project, California Community Colleges Chancellor's Office and The California Manufacturers' and Technology Association

(14) Public Contact Information: Kathleen Dutton, Director of Employment Development & Community Education - Chaffey College; Phone: 909-652-6042; Email: Kathy.Dutton@chaffey.edu

(15) Percentage of OER Program Materials Developed vs. Licensed or Purchased: 40% vs. 60%

(16) Data Tags: Employer Partnerships, Industry-Driven Competencies, Industry-Recognized Credentials, Contextualized Learning, Career Pathways, Basic Skills, Modular Curriculum, Learning Communities, Advanced Manufacturing, TAA Eligible Worker, Cohort Enrollment, Integrated Program Design



**Department of Labor Employment & Training Administration
Trade Adjustment Assistance Community Colleges and Career Training Grants Program
CONSORTIUM AGREEMENT**

June 11, 2014

Chaffey College
5885 Haven Avenue
Rancho Cucamonga, CA 91737
ATTN: Dr. Henry Shannon

Dear Dr. Shannon,

As members of the Inland Empire Regional Training Center Consortium, we submit this letter in strong support of Chaffey College's application for the DOL/ETA TAACCCT Grant. This agreement serves as formal notification to DOL of this consortium's intent to apply, indicates commitment to participate in the project and acknowledges that upon award, member institutions must enter into subgrant agreements with Chaffey College who will serve as the Lead Institution.

The proposed capacity building and sector-based systemic change activities set forth as part of this TAACCCT application will prepare participants for employment in high-wage, high-skill occupations in fields related to Advanced Manufacturing. Further, the consortium maintains strong confidence that this innovative project will create industry-driven strategies that are responsive to regional labor markets and state economies and will be of enormous benefit to both San Bernardino and Riverside County residents, employers, and the high growth and emerging industries in the region. The consortium is dedicated to doing everything within its power to contribute to the success of this program and will leverage resources to provide the following should this application be funded:

PARTICIPATING INSTITUTIONS OF HIGHER EDUCATION

Chaffey College – Has committed to serving as the Lead Institution and will be responsible for project oversight related communication, monitoring, reporting, prior approval requests, provisions of Technical Assistance and Training and Project Evaluation as stipulated in the SGA/DFA PY-13-10. Further, as a contributing member of the consortium, Chaffey has also committed to the following: participate on the newly formed IERTC Advisory Committee, collaborate with secondary, business, post-secondary and any other community partners; identify appropriate credit-bearing college courses and dual enrollment courses in a career pathway to prepare students to enter postsecondary without need for remediation; provide testing and assessment for prior learning; provide college credit where applicable for verified prior learning; provide mapping of skills gaps for those tested for participants; provide a series of courses and training needed to fill the skills gaps identified in the prior learning assessment; collaborate with high school faculty to ensure that course content will prepare students for college level work; collaborate with business partners to align college coursework with relevant technical skills and workplace competencies, as defined by industry; support student advisory resources and credit transfer policies that protect the pathway to degree completion for participating students; assist in the collection, submission and analysis of data that aligns and supports the project; implement nationally recognized industry curriculum responsive to industry need; provide professional development to increase effective teaching methodologies and strategies to enhance training outcomes to the diverse population identified in this grant; facilitate job placement, internships and/or job-shadowing experiences for participants; assist in the development of the Advanced Manufacturing pathway summer certificate programs, including soft skills programs; collaborate with K-12 and community colleges on stackable certificates that lead to seamless



pathways; and provide NCCER's Instructor Craft Training Program (ICTP) to instructors so they may provide nationally recognized industry standardized certification to students in Advanced Manufacturing and related pathways.

Norco College - enhancing workforce delivery and innovative curriculum development in: (1) Industrial Maintenance; (2) Welding, Metal Fabrication; (3) Machining, CNC 3D Prototyping; (4) Automation & Robotics; and (5) Pre-Engineering and Engineering Technology; working with local high schools in order to create pathways and give students interested in a particular career a "head start" on their education, allowing them to earn college credit at NC before graduating high school.

Barstow Community College - participate on the newly formed IERTC Advisory Committee; collaborate with secondary, business, post-secondary and any other community partners; identify appropriate credit-bearing college courses and dual enrollment courses in a career pathway to prepare students to enter postsecondary without need for remediation; provide testing and assessment for prior learning; provide college credit where applicable for verified prior learning; provide mapping of skills gaps for those tested for participants; provide a series of courses and training needed to fill the skills gaps identified in the prior learning assessment; collaborate with high school faculty to ensure that course content will prepare students for college level work; collaborate with business partners to align college coursework with relevant technical skills and workplace competencies, as defined by industry; support student advisory resources and credit transfer policies that protect the pathway to degree completion for participating students; assist in the collection, submission and analysis of data that aligns and supports the project; implement nationally recognized industry curriculum responsive to industry need; provide professional development to increase effective teaching methodologies and strategies to enhance training outcomes to the diverse population identified in this grant; facilitate job placement, internships and/or job-shadowing experiences for participants; assist in the development of the Advanced Manufacturing pathway summer certificate programs, including soft skills programs; collaborate with K-12 and community colleges on stackable certificates that lead to seamless pathways; and provide NCCER's Instructor Craft Training Program (ICTP) to instructors so they may provide nationally recognized industry standardized certification to students in Advanced Manufacturing and related pathways.

College of the Desert - adopt and implement curriculum responsive to industry need; design and implement effective teaching methodologies and strategies to enhance training outcomes to the diverse population identified in this grant; facilitate job placement, internships and/or job-shadowing experiences for participants; design an efficient and effective evaluation strategy; to actively participate in the IERTC advisory committee; accept referrals from the training program; provide space for staff to meet with participants, conduct workshops, etc.; participate in recruitment activities, career days, college fairs, and other events where eligible participants may be recruited; attend advisory committee and collaborative meetings to assess participants need, determine appropriate service and provide referral; speak at meetings to promote the program; enroll qualified participants in similar supportive programs at our school/organization; offer supportive services, such as counseling career, academic and/or personal; expand pathways from K12 feeder districts to support recent graduates to earn industry certifications, non-credit CTE Certificates and Credit Certificates and Degrees.

Mt. San Jacinto Community College District - adopt and implement curriculum responsive to industry need; design and implement effective teaching methodologies and strategies to enhance training outcomes to the diverse population identified in this grant; facilitate job placement, internships and/or job-shadowing experiences for participants; design an efficient and effective evaluation strategy; to actively participate in the IERTC advisory committee; accept referrals from the training program; provide space for staff to meet with participants, conduct workshops, etc.; participate in recruitment activities, career days, college fairs, and other events where eligible participants may be recruited; attend advisory committee and collaborative meetings to assess participants need, determine appropriate service and



provide referral; speak at meetings to promote the program; enroll qualified participants in similar supportive programs at our school/organization; provide workshops on employability skills, academic and career choices, or other relevant topic; contribute to the scholarship fund activities for economically challenged students with potential; offer supportive services, such as counseling career, academic/and or personal.

Victor Valley College - participate on the newly formed IERTC Advisory Committee; adopt and implement proved curriculum responsive to industry need; design and implement effective teaching methodologies and strategies to enhance training outcomes to the diverse population identified in this grant; facilitate job placement, internships and/or job-shadowing experiences for participants; design an efficient and effective evaluation strategy; accept referrals from the training program; provide space for staff to meet with participants, conduct workshops, etc.; participate in recruitment activities, career days, college fairs, and other events where eligible participants may be recruited; speak at meetings to promote the program; enroll qualified participants in similar supportive programs at our school/organization; provide workshops on employability skills, academic and career choices, or other relevant topic; contribute to the scholarship fund activities for economically challenged students with potential; and offer supportive services, such as counseling career, academic/and or personal.

San Bernardino Community College District, Valley College campus - adopt and implement proven curriculum responsive to industry need; incorporate effective teaching methodologies and strategies to enhance training outcomes to the diverse population identified in this grant; facilitate job placement, internships and/or job-shadowing experiences for participants; actively participate in the IERTC advisory committee; accept referrals from the training program; provide space for staff to meet with participants, conduct workshops, etc.; participate in recruitment activities where eligible participants may be recruited; offer supportive services, such as counseling career.

Crafton Hills College - accept referrals from the training program; provide space for staff to meet with participants, conduct workshops, etc.; participate in recruitment activities where eligible participants may be recruited; offer supportive services, such as counseling career; attend advisory committee and collaborative meetings to assess participants need, determine appropriate service and provide referral; enroll qualified participants in similar supportive programs at our school; compare CHC academic coursework to program offerings; develop curriculum based on the review and analysis.

Riverside City College - enhancing workforce delivery and innovative curriculum development in: (1) Industrial Maintenance; (2) Welding, Metal Fabrication; (3) Machining, CNC 3D Prototyping; (4) Automation & Robotics; and (5) Pre-Engineering and Engineering Technology; work with local high schools in order to create pathways and give students interested in a particular career a "head start" on their education, allowing them to earn college credit at NC before graduating high school; partner with school districts in Riverside to establish pathways and will work with the Tri-Tech Small Business Development Center to create training solutions that are appropriate responses to business needs, including management, technical, and/or basic skills training.

MiraCosta College - adopt and implement curriculum responsive to industry need; assist with the creation of a new Bachelor's in Engineering in collaboration with California State University, San Marcos Extended Studies; design and implement effective teaching methodologies and strategies to enhance training outcomes to the diverse population identified in this grant; facilitate job placement, internships and/or job-shadowing experiences for participants; design an efficient and effective evaluation strategy; actively participate in the IERTC advisory committee; accept referrals from the training program; provide space for staff to meet with participants, conduct workshops, etc.; participate in recruitment activities, career days, college fairs, and other events where eligible participants may be recruited; attend advisory committee and collaborative meetings to assess participants need, determine appropriate service and



provide referral; speak at meetings to promote the program; enroll qualified participants in similar supportive programs at our school/organization; provide workshops on employability skills, academic and career choices, or other relevant topic; contribute to the scholarship fund activities for economically challenged students with potential; offer supportive services, such as counseling career, academic/and or personal.

California State University, San Bernardino - provide comprehensive training in the area of entrepreneurship and business ownership skills; transition those completing our entrepreneurial training program to our Small Business Development Center (SBDC) and Women’s Business Center (WBC) programs to receive on going mentoring and counseling; to actively participate in the IERTC Advisory Committee; attend advisory committee and collaborative meetings to assess participants need, determine appropriate service and provide referral; speak at meetings to promote the program.

University of California, Riverside – actively participate in the IERTC Advisory Committee; connect stakeholders to iHub activities when relevant; attend advisory committee and/or collaborative meetings to provide insight into university-level alignment of career pathways; convene appropriate individuals/agencies to assist in meeting work plan and overall academic and economic impact goals; and provide a link to the University of California, Riverside-Extension to explore the possibility of establishing articulation agreements and/or program alignment to allow students to obtain credit for coursework and training completed at community colleges.

As subrecipients, we as member institutions of the IERTC TAACCT proposal will follow all the terms and conditions of our Grant Award, per 29 CFR 95.5. We also will submit programmatic and financial information to Chaffey College to facilitate submissions of quarterly programmatic and fiscal reports by Chaffey College in compliance with 29 CFR Part 95. Once again, we submit this letter in strong support of Chaffey College’s application for the DOL/ETA TAACCCT Grant.

Sincerely,

Paul Parnell, PhD
President
Norco College

Dr. Debbie Di Thomas
Superintendent/President
Barstow Community College

Anna Davies
Executive Vice-President
Student Learning and Support Services
College of the Desert

Dr. Roger Schultz
Superintendent/President
Mt. San Jacinto Community College

Peter Allan
President/Superintendent
Victor Valley College

Bruce Baron
Chancellor
San Bernardino Community College District

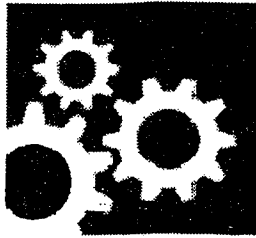
Cheryl A. Marshall, Ed.D.
President
Crafton Hills College

Edward Bush
Vice President, Student Services
Riverside City College

Linda Kurokawa
Director, Community Services and Business
Development
MiraCosta College

Dr. Mike Stull
Director, Inland Empire Center for Entrepreneurship
California State University, San Bernardino

Robert Chan
Sr. Contract & Grant Officer
University of California, Riverside



**MANUFACTURERS'
COUNCIL**
of the Inland Empire

June 24, 2014

To Whom It May Concern:

On behalf of the Manufacturers' Council of the Inland Empire and our partners, we pledge our support of the Inland Empire Regional Training Consortium's (IERTC) Trade Adjustment Assistance Community College and Career funding proposal for which we are applying.

The partnership and vested support for this effort includes the San Bernardino County, City and Riverside County Workforce Investment Board Systems, eleven community college districts, California State University, San Bernardino, University of California, Riverside, other local public and private four-year universities, California Steel Industries, Inland Empire Economic Partnership, Riverside County WIB, San Bernardino County WIB, San Bernardino City WIB, San Bernardino County Superintendent of Schools, Alliance for Education, Baldy View ROP, CRYROP, Goodwill Foundation, CAP Program, Catholic Charities, and James Irvine Foundation.

The formation of the IERTC will enhance workforce delivery and innovative curriculum development that will achieve levels of success for our adult students, particularly our long term unemployed workers who have little chance of returning to prior wage levels without new credentials. This regional initiative is based on creating a skilled workforce for our local employers by; raising the skill level of thousands of our workforce members who are displaced (TAA-eligible), unemployed, under-employed, out-of-school youths and/or incumbent workers with a need to improve technical skills and training for career advancement. **The regional focus on advanced manufacturing will meet the training and employment needs of our region's largest employment sector, developing the highly trained/highly technical workforce necessary to advance the local economy and attract new industry to the region.**

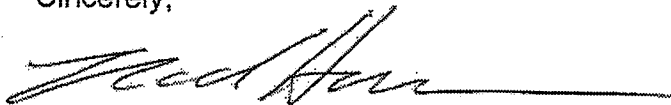
Should we receive funding to implement training program, we are committed to the following:

- Service on the project's leadership team
- Identifying a regional industry representative(s) to work with the consortium to help establish effective sector strategies
- Incorporating IERTC graduates into recruitment and placement strategies

- Providing technical assistance to align the work-based learning model with the pathways identified by the consortia, in order to promote the adoption of academic credit for competencies attained on the job
- Assisting the consortia in developing an employer engagement outreach strategy and work plan for employers to deliver the work-based instruction, including supervisor training and related activities
- Assisting in the implementation of program strategies and goals
- Assisting with curriculum development, program design, and subsequent implementation of program design
- Providing leveraged resources to support education/training (such as equipment, facilities, and, instructors)

We believe that this innovative new grant will be of enormous benefit to the employers and residents of this area and are dedicated to doing everything within our power to contribute to the success of this program. We are committed to being full partners in promoting the education of our residents and the community at large and increasing the economic vitality of our region.

Sincerely,



Rod Hoover, Vice Chair
Manufacturers' Council of the Inland Empire

Manufacturing Council of the Inland Empire
Participating Employers

Ashley Furniture
Brithinee Electric
California Quality Plastics
California Steel Industries
Cott Beverages
Horizon Hobby
Michaels
Nestle Waters, North America
Niagara Water
Penn Emblem
Packing Corp
Safariland
Southern California Edison
Spray-Tech
Steelscape
Total Resources International
Ventura Foods
Vista Metals



Jack M. Stewart
President

June 28, 2014

To Whom It May Concern:

On behalf of the California Manufacturers & Technology Association, I pledge our support of the Inland Empire Regional Training Consortium's (IERTC) Trade Adjustment Assistance Community College and Career funding proposal for which we are applying.

This region is the prize of California in its efforts to collaborate among the Manufacturers, WIBs, and Community Colleges. Their commitment to workforce development is evident by the success of the Manufacturers Council of the Inland Empire workforce development and training programs as well as the Manufacturers' Summit event that takes place each year. This region is well-poised to deliver on the TAACCCT grant opportunity. They will get the job done and put people to work in an effective and efficient manner.

The formation of the IERTC will enhance workforce delivery and innovative curriculum development that will achieve levels of success for our adult students, particularly our long term unemployed workers who have little chance of returning to prior wage levels without new credentials. This regional initiative is based on creating a skilled workforce for our local employers by; raising the skill level of thousands of our workforce members who are displaced (TAA-eligible), unemployed, under-employed, out-of-school youths and/or incumbent workers with a need to improve technical skills and training for career advancement. The regional focus on advanced manufacturing will meet the training and employment needs of this region's largest employment sector, developing the highly trained/highly technical workforce necessary to advance the local economy and attract new industry to the region.

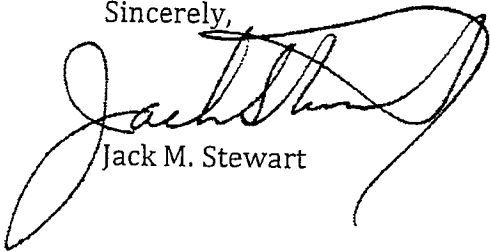
Should this funding be awarded to implement training program, we are committed to the following:

- Assist with the identification of an Advanced Manufacturing Industry Sector Representative
- Actively engage and contribute to dialog and planning at scheduled IERTC Committee meetings
- Promote the IERTC Project to other industry partners in order to garner additional industry support

- Service on the project's leadership team
- Identifying a regional industry representative(s) to work with the consortium to help establish effective sector strategies
- Assisting the consortia in developing an employer engagement outreach strategy and work plan for employers to deliver the work-based instruction, including supervisor training and related activities
- Assisting in the implementation of program strategies and goals
- Assisting with curriculum development, program design, and subsequent implementation of program design
- Providing leveraged resources to support education/training (such as equipment, facilities, and, instructors).

We believe that this innovative new grant will be of enormous benefit to the employers and residents of this area and are dedicated to doing everything within our power to contribute to the success of this program. We are committed to being full partners in promoting the education of our residents and the community at large and increasing the economic vitality of our region.

Sincerely,

A handwritten signature in black ink, appearing to read "Jack M. Stewart", written over a horizontal line.

Jack M. Stewart

DEPARTMENT OF WORKFORCE DEVELOPMENT

COUNTY OF SAN BERNARDINO
Economic Development Agency

ADMINISTRATION
215 North D Street, #301, San Bernardino CA 92415-0046
FAX (909) 387-9870



Toll Free (800) 451-JOBS
California Relay Service 711

June 17, 2014

Subject: Partnership with the Inland Empire Regional Training Consortium

To Whom It May Concern:

With this letter, the San Bernardino County Workforce Investment Board (WIB) and the Department of Workforce Development (WDD) pledge our support and partnership of the Inland Empire Regional Training Consortium's (IERTC) Trade Adjustment Assistance Community College and Career funding proposal.

The WIB is responsible for administering the Workforce Investment Act of 1998 (Public Law 105-220) to all residents of San Bernardino County. Through its broad membership, the WIB encourages collaboration among local public, private and non-profit entities. This collaboration is further enhanced through its committee structure; members include representatives from private business, public partners, educational institutions, government and community organizations that have a vested interest in workforce issues.

We are committed to continued collaboration with the IERTC and applaud further efforts to create a stronger connection with industry and educational entities. This regional initiative is based on creating a skilled workforce for our local employers by raising the skill level of our residents who are displaced (TAA-eligible), unemployed, under-employed, out-of-school youths and/or incumbent workers with a need to improve technical skills and training for career advancement. The regional focus on advanced manufacturing will meet the training and employment needs of our region's largest employment sector, developing the highly trained/highly technical workforce necessary to advance the local economy.

The partnership and vested support for this effort will include the following:

- *Provide assistance to participants with employment opportunities through our county-wide America's Job Center of California (AJCC) outreach efforts to business and industry,*
- *Refer dislocated, unemployed, underemployed, lower-income, and those with disabilities as well as other clients to training offered through this funding,*
- *Continue to actively participate in Manufacturing Council of the Inland Empire (MCIE) meetings, collaborative meetings, and the IERTC Advisory Committee,*
- *Facilitate job placement of qualified candidates connecting them to current, related jobs,*
- *Connect employers to the classroom to provide facility tours to faculty and/or students,*
- *Connect with employers to recruit directly from the training location into jobs that match the specialized training,*
- *Participate in program evaluation(s), and provide outcome data to the appropriate staff,*
- *Provide space for staff to meet with participants, conduct workshops, etc.,*
- *Participate in recruitment activities where eligible participants may be recruited,*

GREGORY C. DEVEREAUX
Chief Executive Officer

Board of Supervisors
ROBERT A. LOVINGOODFirst District JAMES RAMOS.....Third District
JANICE RUTHERFORD...Second District GARY C. OVITT.....Fourth District
JOSIE GONZALES.....Fifth District

- *Attend collaborative meetings to assess participants need, determine appropriate service and provide referral,*
- *Promote the program at meetings and events to encourage support and participation of both employers and those in need of training/employment, and*
- *Offer supportive services as appropriate to IERTC participants.*

The WIB is dedicated to the success of IERTC and is looking forward to being a full partner and collaborator which will inevitably promote the education of our residents and the community at large and increasing the economic vitality of our region.

Sincerely,

Sandra Harmsen

Sandra Harmsen
Director, Department of Workforce Development
Executive Director, San Bernardino County Workforce Investment Board

Julie Adams
Layne Arthur
Iddo Benzeevi
Lisa Brandl
Shelagh Camak
Kenny Calvin
Kenneth Clark
Jamil Dada
Louis Davis
Juan DeLara
Guadalupe Del Gado
Sharon Duffy
Imran Farooq
Mirna Flores
Duane Friel
Robert Frost
Rick Glasmann
Cherilyn Greenlee
Michele Haddock
Francisca L. Hernandez
Barbara Howison
Peter Hubbard
Angela Janus
Joyce Johnson
Maria Juarez
Barry Keyes
James King
Suzanne Lingold
Brooks Lockhart
Claudia Lopez
Deanna Lorson
Scott Mann
Paul Marchand
Charles Martin
Debra Martin
Chuck McDaniel
Vincent McCoy
Morris Myers
Sonia Nunez
Louise Oppenheim
Ken Orr
Lea Petersen
Steve Popkin
Darryl Rawlings
Guy Reams
Susan Senior
Tina Sewell
Laurie Stalnaker
Stanley Stosel
Diane Strand
Diane Stuart
Ron Vito
Susan von Zabern



MORRIS MYERS, CHAIR

June 26, 2014

Ms. Portia Wu
Assistant Secretary
U.S. Department of Labor
Employment and Training Administration
200 Constitution Avenue, NW, Room N4716
Washington, DC 20210

Dear Ms. Wu:

The Riverside County Workforce Investment Board is pleased to partner in support of the application being submitted by the Inland Empire Regional Training Consortium's (IERTC) for the Trade Adjustment Assistance Community College and Career (TAACCCT) funding proposal. The IERTC will enhance workforce delivery and innovative curriculum development that will achieve levels of success for adult students, particularly long-term unemployed workers who have little chance of returning to prior wage levels without new credentials.

The Riverside County Workforce Investment Board is one of 600 private-sector led Workforce Investment Boards (WIBs) in the Country. WIBs are transforming the nation's workforce system to be responsive to the demands of a global economy. Through strong strategic partnerships with private-sector businesses, local government, community-based organizations, institutions of higher education and K-12 education, WIBs remain in a prime position to serve as the pipeline for a skilled labor force necessary for economic recovery and long-term growth.

The following existing supports and services will be available to participants through the American Job Centers in our region:

- Referral of appropriate candidates to TAACCCT programs for education and training;
- Co-enrolling TAACCCT participants into Workforce Investment Act (WIA) Title I programs, where appropriate;
- Providing support services in a leveraged and coordinated manner with the community college, through WIA;

Page 2

- Working with the IERTC programs to ensure that proposed Programs of Study qualify for inclusion on appropriate eligible training provider lists;

In addition, the Riverside County Workforce Investment Board is requesting TAACCCT funding from the proposed application. These resources will be used to help facilitate employer engagement in the sector strategy by supporting their involvement in both required and encouraged roles in the TAACCCT partnership. Proposed activities are:

- Evaluate the targeted industry sector to ensure targets are aligned with current and future regional economic growth.
- Strengthening employer engagement through new and existing industry alliances in the targeted industry sector.
- Assisting the IERTC in reaching out to employers to build support for the TAACCCT program.

The Riverside County Workforce Investment Board looks forward to partnering with the IERTC to ensure our region meets the needs of our customers, job seekers and businesses, by providing "Infinite Opportunity and Lasting Prosperity."

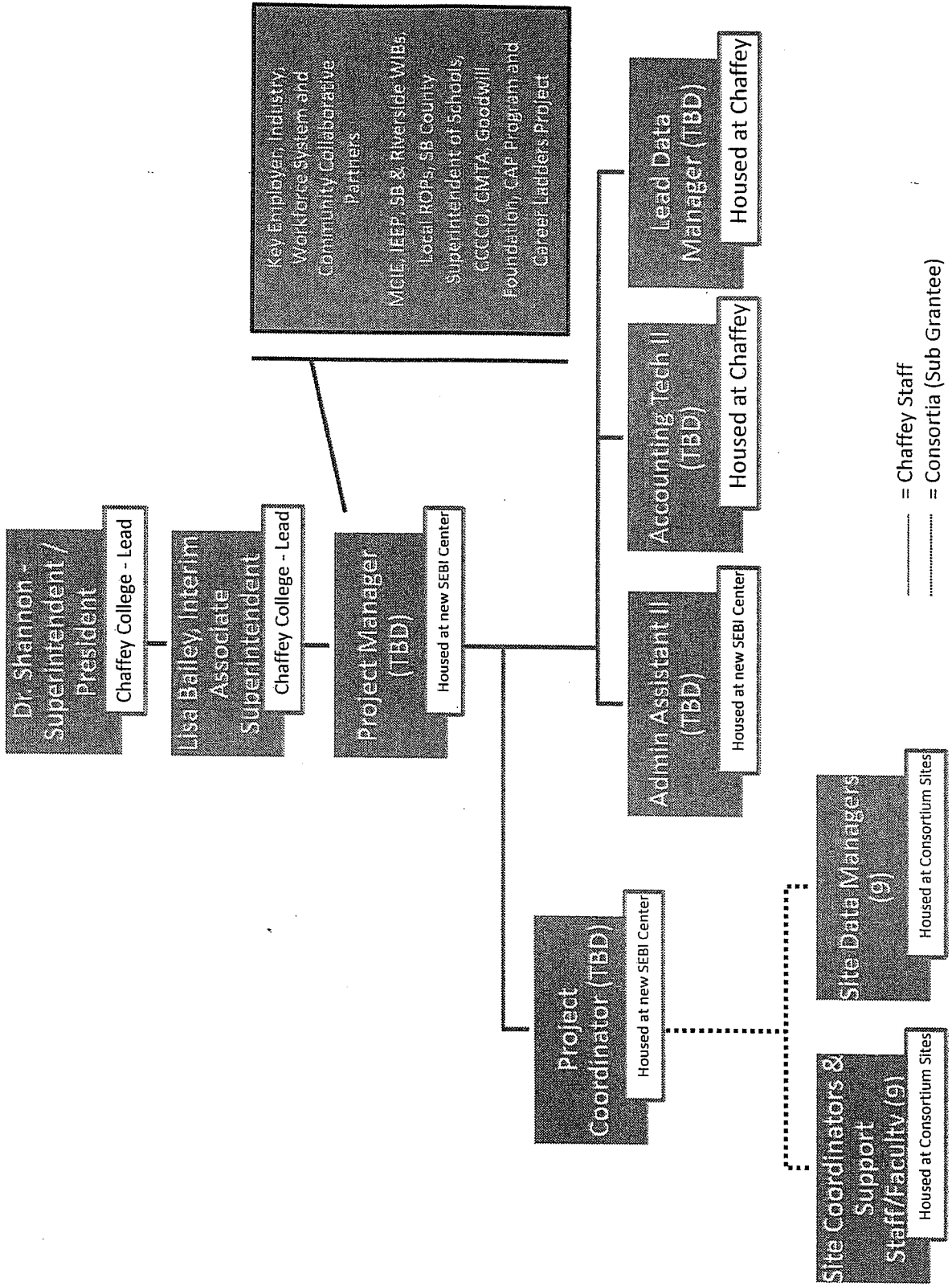
Should you have any questions regarding the committed partner role of the Riverside County Workforce Investment Board, please do not hesitate to contact me.

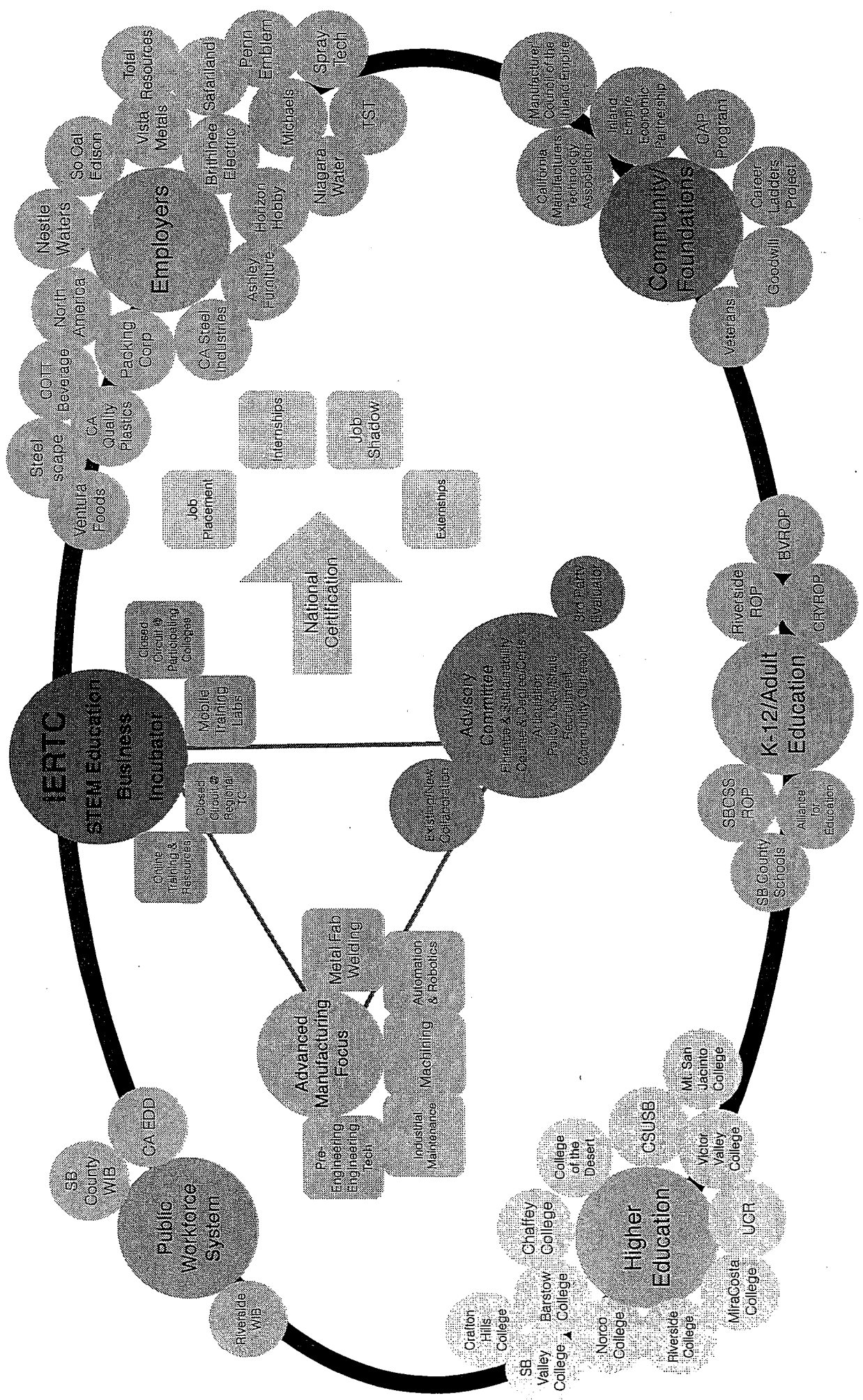
Sincerely,

A handwritten signature in black ink, appearing to read "Morris Myers". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

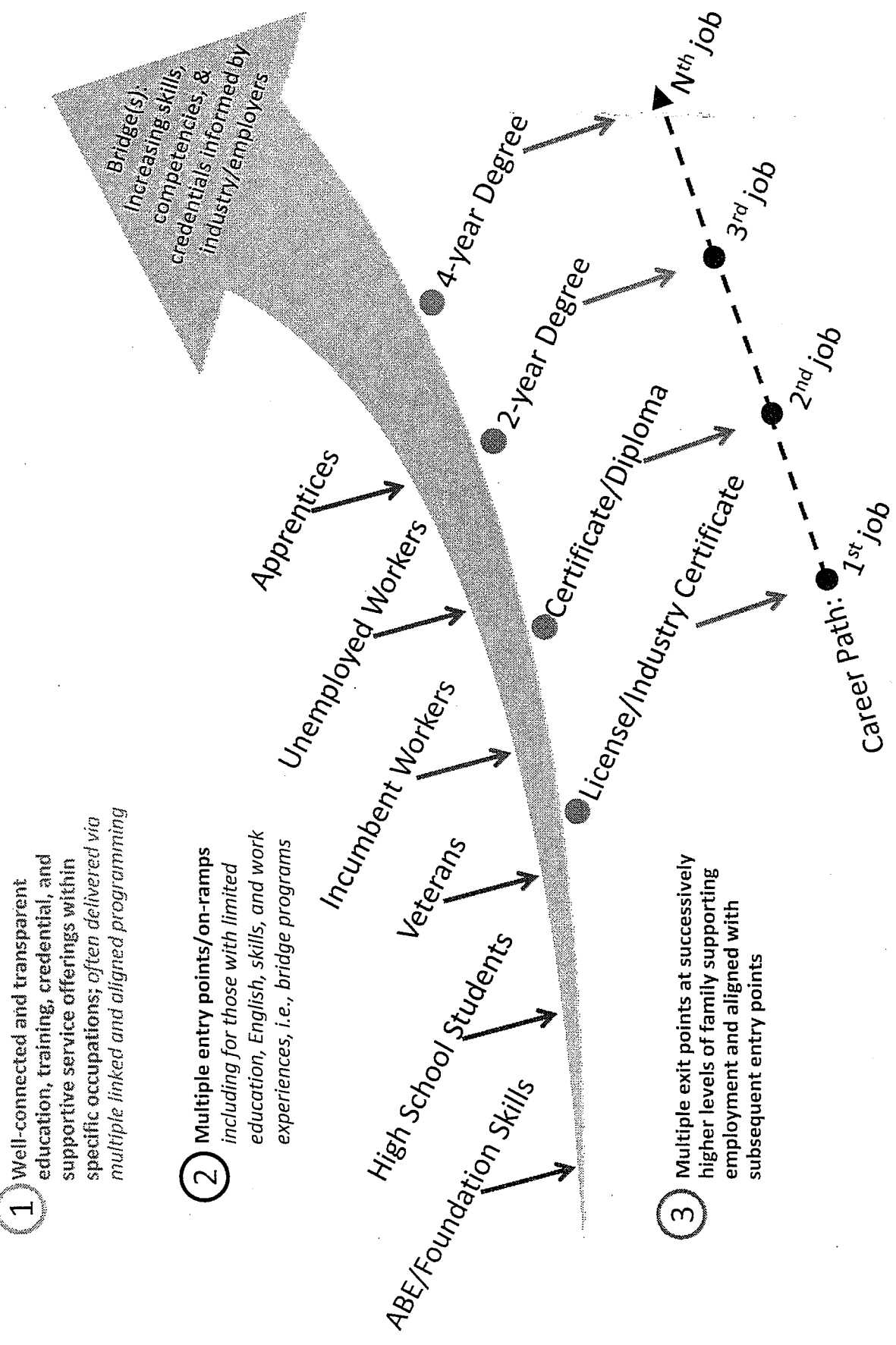
Morris Myers, Chairman
Riverside County Workforce Investment Board

Proposed TAA IERTC Project Organizational Chart



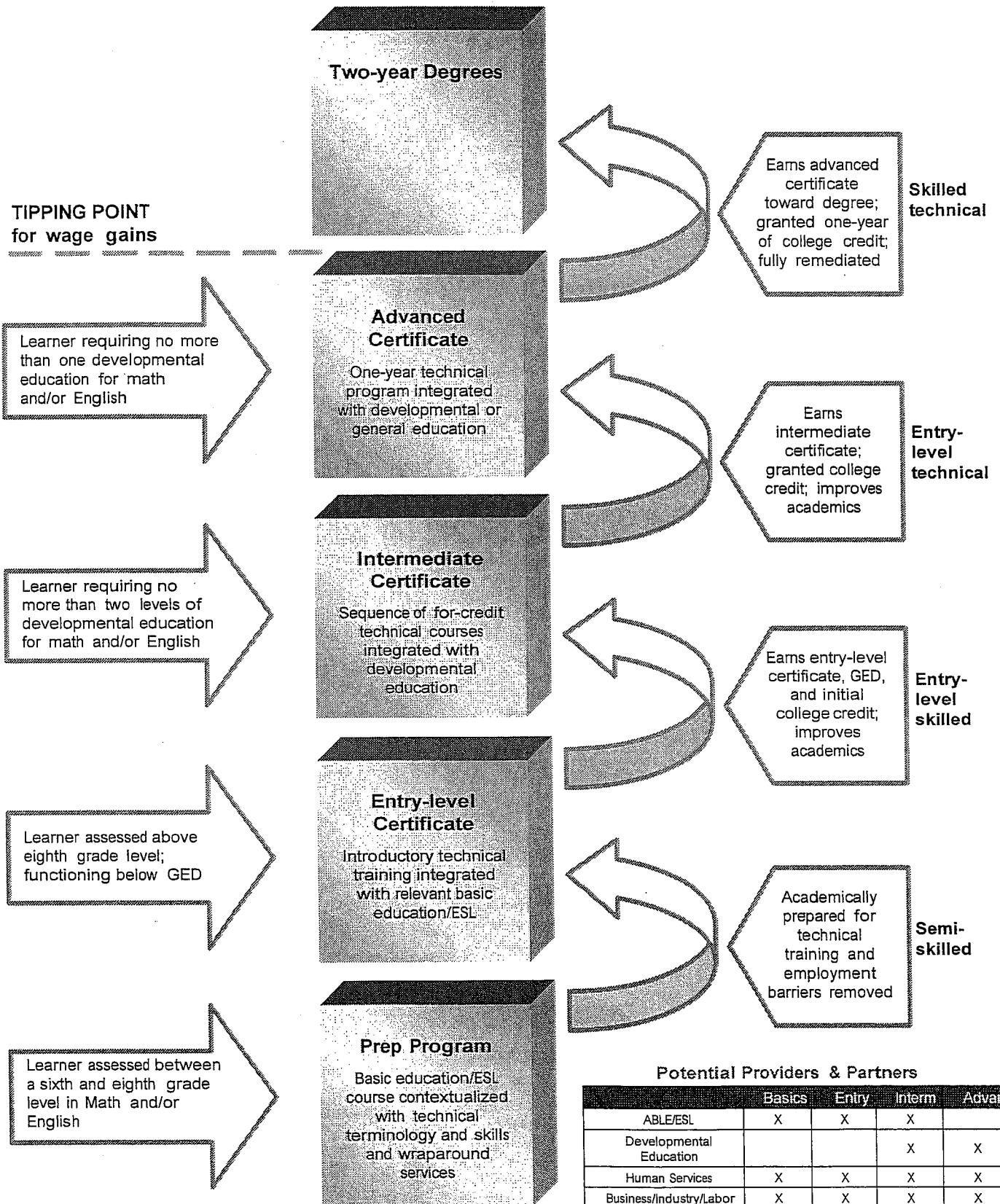


Three Features of Sector-Focused Career Pathways



Stackable Certificates Diagram – Two-Year Degrees

**TIPPING POINT
for wage gains**

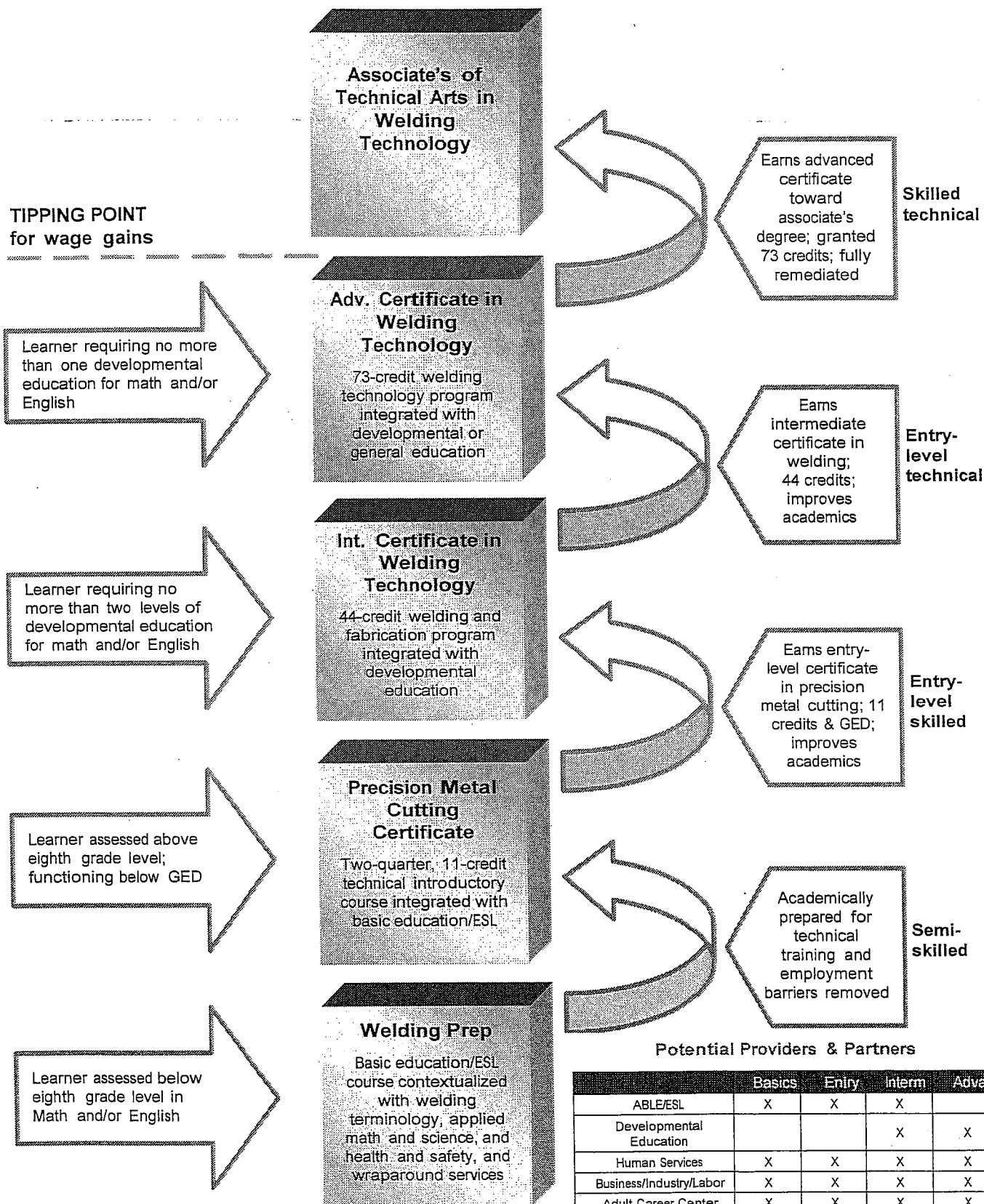


Potential Providers & Partners

	Basics	Entry	Interm	Advan
ABLE/ESL	X	X	X	
Developmental Education			X	X
Human Services	X	X	X	X
Business/Industry/Labor	X	X	X	X
Adult Career Center	X	X	X	X
Community College	X	X	X	X
Branch campus			X	X

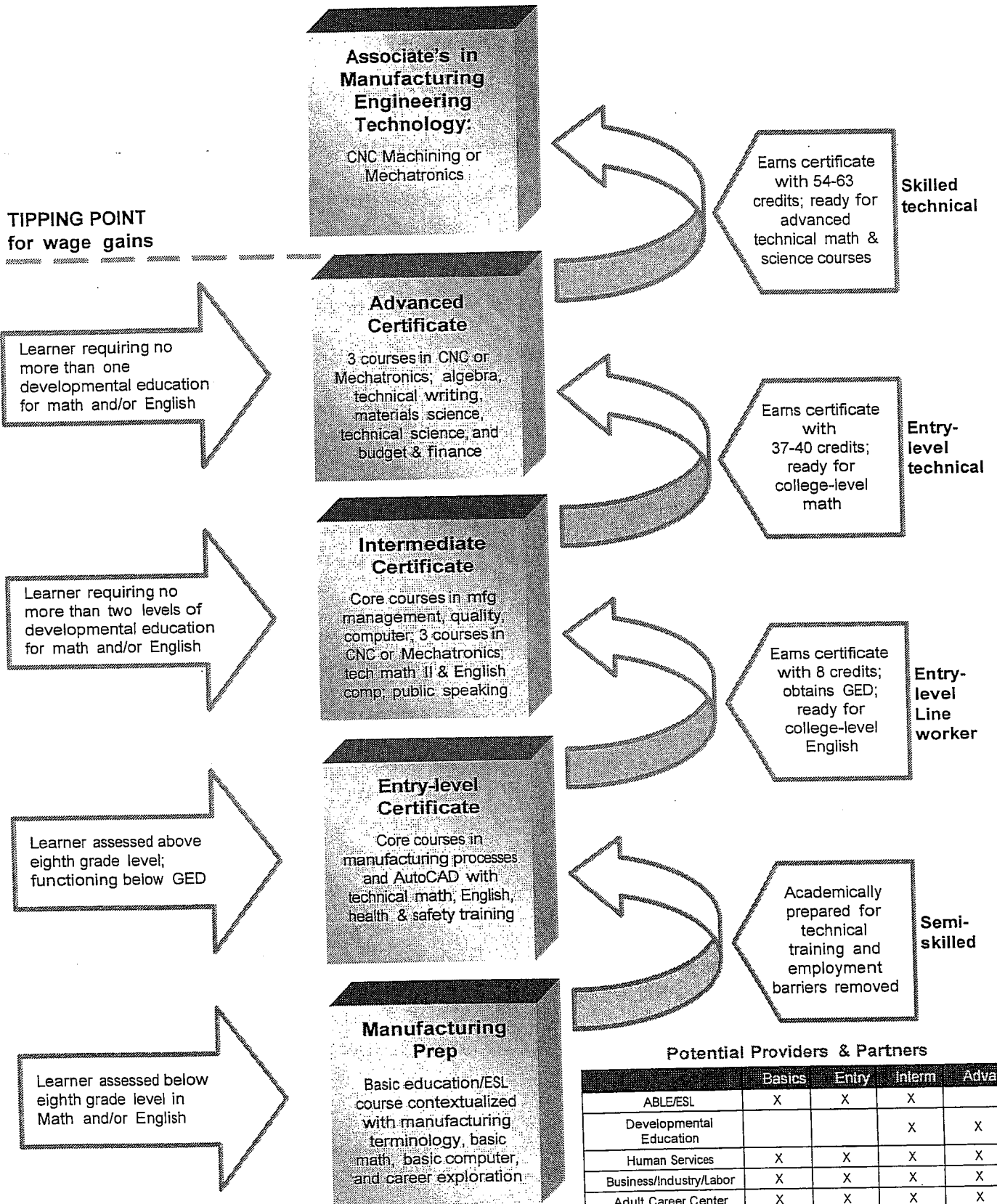
Adapted from Columbus State Community College, Columbus, Ohio

Stackable Certificates Diagram – Welding



Adapted from Columbus State Community College, Columbus, Ohio

Stackable Certificates Diagram – Advanced Manufacturing



Adapted from Columbus State Community College, Columbus, Ohio

Performance Metrics of the Employment Results Scorecard

The Inland Empire Regional Training Center (IERTC) intends to utilize the California Community College Chancellor's Office's (CCCCO) Career Technical Education (CTE) LaunchBoard application as its platform for collecting and reporting Employment Results Scorecard data. The LaunchBoard application was specifically developed by the CCCCCO to provide accountability for and measurement of grant activities administered through the CCCCCO's Workforce and Economic Development Division. In this capacity, LaunchBoard directly addresses the five performance metrics identified by the U.S. Department of Education, as well as a number of other relevant metrics – in total, LaunchBoard currently measures 34 unique and distinct performance outcome metrics.

All participating community college members have access to LaunchBoard. LaunchBoard currently provides institution-specific data by program area (e.g., Electronics and Electric Technology; Environmental Control Technology (HVAC); Manufacturing and Industrial Technology; etc.) and academic year, resulting in the ability to compare performance outcomes across programs and time. Metrics are grouped into meaningful "momentum point (MP)" clusters that track student progression and achievement from middle school through postsecondary education and employment. Performance metrics currently included in LaunchBoard are:

Middle School Cluster:

- MP1: Completion of an individual career and skills awareness workshop in middle school that includes a normed assessment process

Transition From Middle School to High School Cluster:

- MP2: Completion of a bridge program between middle school and high school and revised student career/education plan
- MP3: Completion of a student orientation and assessment program while in middle school or high school

High School Cluster:

- MP4: Completion of one course in high school within a CTE pathway
- MP5: Completion of two or more courses in high school within a CTE pathway
- MP6: Completion of a CTE articulated course

- MP6A: Successful completion of a CTE dual enrollment course or credit by exam, with receipt of transcribed credits
- MP7: Completion of a program in high school within a CTE pathway

Transition From High School to College Cluster:

- MP8: Completion of a bridge program between high school and college in a CTE pathway
- MP9: Completion of college orientation and assessment as a first-time community college student who entered a community college CTE pathway
- MP10: Transitioned from a high school CTE pathway to a similar community college CTE pathway
- MP11: Transferred from a high school CTE pathway to a similar CSU, UC, or private/independent university pathway
- MP12: Completion of a counselor-approved college education plan for first-time community college students who entered a CTE pathway
- MP13: During high school, participated in an internship, work-based learning, mentoring, or job-shadowing program in a CTE pathway
- MP14: Percentage of community college students who participated in a high school CTE pathway whose first math or English course was below transfer-level

Community College Cluster:

- MP15: Completion of two collegiate level courses in the same CTE pathway
- MP16: Retention rate between fall and spring within a CTE pathway
- MP17: Completion of a non-CCCCO approved certificate within a CTE pathway
- MP18: Completion of a CCCCCO-approved certificate within a CTE pathway

Community College Cluster:

- MP15: Completion of two collegiate level courses in the same CTE pathway
- MP16: Retention rate between fall and spring within a CTE pathway
- MP17: Completion of a non-CCCCO approved certificate within a CTE pathway
- MP18: Completion of a CCCCCO-approved certificate within a CTE pathway

General Education and Transfer Progress Cluster:

- MP19: Completion of a work readiness soft skills training program (either stand-alone or embedded) within a CTE pathway
- MP20: Completion of college-level English and/or math for students in a CTE pathway
- MP21: Completion of a CSU-GE or IGETC transfer track/certificate for students in a CTE pathway
- MP22: Completed requirements in a CTE pathway but did not receive a certificate or degree
- MP23: Completed an Associate Degree in a CTE pathway
- MP24: Completed an Associate Degree in a major different from students' college CTE pathway
- MP25: Transferred from community college to a four-year university in the same CTE pathway
- MP26: Transferred from a community college to a four-year institution in a major different from the student's CTE pathway

Community College Transition to Workforce Cluster:

- MP27: Participation in a college internship or workplace learning program within a CTE pathway
- MP28: Attained a job placement in the same or similar field of study as CTE pathway
- MP29: Acquired an industry-recognized, third-party credential

Workforce Progress Cluster.

- MP30: Attained a wage gain in a career in the same or similar CTE pathway
- MP31: Attained wages equal to or greater than the median regional wage for that CTE pathway
- MP32: Attained wages greater than the regional standard-of-living wage
- MP33: Participated in incumbent worker training or contract education in a CTE pathway (including the TAA population)
- MP34: Exceptions (to be determined by the CCCCCO)

As the list of measurable momentum points suggest, MPs 21 through 33 collectively address the five items that are mandated as part of the Employment Results Scorecard. Furthermore, the comprehensive list of metrics that examine student performance and progression from middle school through employment provide the IERTC with multiple decision points that lead to actionable strategies that are informed by empirical evidence.

All MPs in LaunchBoard report current year outcomes, 5-year averages, and a trend analyses for each data point that shows whether observed outcomes are increasing, decreasing, or remaining constant. For most MPs, disaggregated data by student characteristics are also available, increasing the ability to develop actionable strategies for select student populations. IERTC will also work with the CCCCCO to provide regional results that are aggregated at the consortium level, improving the ability of consortium members to identify and make decisions that positively impact the entire consortium, not just select member institutions.

Plan to Obtain and Share Data

While most of the data incorporated into LaunchBoard are from a consistent source (California Community College Chancellor's Office Management Information System (COMIS) files, reported by all 112 California Community Colleges to the CCCCCO at the end of each semester), the Chancellor's Office also integrates data from other external sources (e.g., CTE Employment Outcomes Survey; California Economic Development Department; National Student Clearinghouse, Economic Modeling Specialists, Inc. (EMSI)) and CCCCCO-developed platforms (e.g., Salary Surfer) that provide even richer, more robust data to inform decision-making. IERTC will also continue to explore other data-sharing agreements (with existing partners

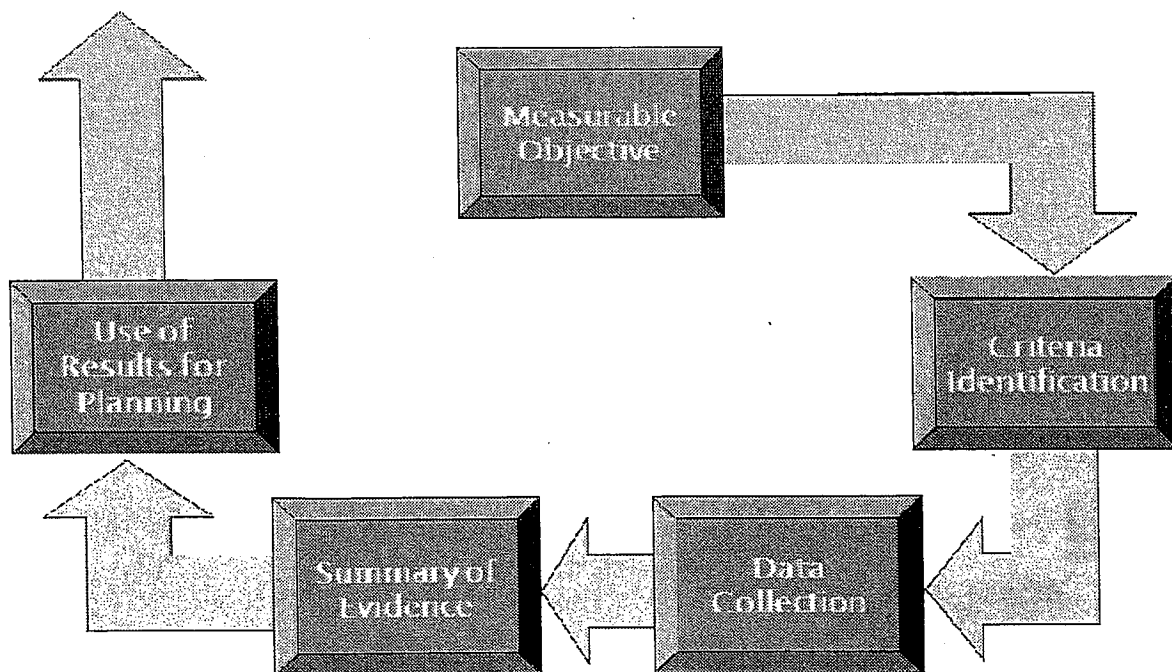
and new sources) and platforms (e.g., Efforts-to-Outcomes (ETO) Software, developed by Social Solutions in Bethesda, Maryland) to further enhance and improve available data.

While LaunchBoard is a robust platform that provides a wide range of data for informed decision-making, it is designed for internal users who are familiar with data reporting and/or the California Community College system. IERTC is cognizant of the need to develop and provide more "user-friendly" CTE program snapshots to end users who lack the technical proficiency to digest the volume of data and information. To this end, IERTC will work directly with the CCCC to develop easy-to-access program dashboards that provide quick, concise, and informative program overviews. These dashboards will be available at program, institutional, and consortium-levels and made accessible to the general public as well as to consortium members.

Plan to Use Data for Continuous Improvement

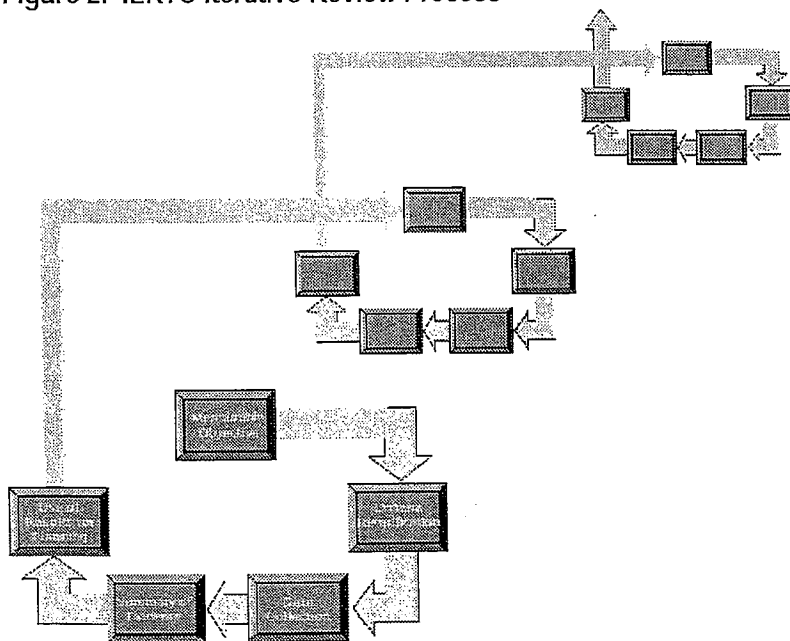
To facilitate use of data for continuous improvement, IERTC has developed an investigative model (see Figure 1).

Figure 1: IERTC Investigative Model



The IERTC has established grant objectives that have clear, measurable criteria. Utilizing LaunchBoard and other applicable data sources, the IERTC advisory committee will have access to a robust data collection system that provides quantitative and qualitative evidence about the efficacy of existing practices and the extent to which grant objectives are being met, as well as trend data. With the ability to disaggregate data by program, institution, and student characteristics, the advisory committee will also possess the capacity to observe the potential impact of grant goals and objectives relative to unique programs and historically underrepresented populations. With the granular level of data that is available, the advisory committee will be able to specifically identify program strengths and weaknesses, allowing participating colleges within the consortium to develop actionable strategies to improve programs and possibly eliminate ineffective ones. As identified in Figure 2, it is the intent of the advisory committee to engage in an iterative cycle of goal-setting/criteria identification/data collection/informed discussion and evidence-based decision-making/program modification to continually engage all constituencies and systemically improve performance outcomes.

Figure 2: IERTC Iterative Review Process



Estimated Costs

While IERTC is leveraging a number of existing resources (e.g., LaunchBoard) that are universally accessible to all consortium members, additional expenditures will have to be made to augment and enhance these resources. IERTC has identified three specific areas where additional enhancements to data collection protocol will result in an optimized Employment Results Scorecard.

Participation in the annual Career Technical Education (CTE) Employment Outcomes Survey. Meaningful metrics (e.g., employment; employment in the same or similar field; wage gain in field; average annual salary in the same or similar field; etc.) are captured in the annual Career Technical Education (CTE) Employment Outcomes Survey; key survey findings are subsequently incorporated into LaunchBoard. Starting in 2013-14, the survey will be administered by Santa Rosa Junior College on behalf of the California Community College Research and Planning (RP) Group. Students who meet cohort criteria (i.e., students who earned a certificate of 6+ units and/or a vocational Associate's degree, or earned 9+ units in CTE classes and did not enroll the following year) are included in the survey process. While cost to participate in the survey is based upon each participating institution's cohort size, it is estimated that the average annual cost to participate will be approximately \$10,500 per participating institution, or approximately \$94,500 for the nine participating community college consortium members. Estimated costs are based on the following assumptions:

- \$500 per college base cost for survey administration
- \$.50 per email survey
- \$1.65 per U.S. mail survey
- \$3.50 per phone survey
- 12% overhead

As the cost assumptions suggest, the survey process includes reaching out to identified cohort students through multiple e-mail, U.S. mail, and telephone contacts, resulting in an improved response rate over a single outreach method.

Lead Data Manager at Chaffey College to coordinate institutional and IERTC consortium data collection and reporting efforts. While Chaffey College's data collection responsibilities parallel those of other community college consortium members, as the lead institution in the consortium Chaffey College has accepted the added responsibility of coordinating consortium-wide data collection and reporting efforts, including summarizing consortium-wide findings, disaggregating data by program, institution, and specific student populations, and generating useful and user-friendly reports. The Lead Data Manager will also assist the Project Manager and Project Coordinator in preparing annual performance reports and other grant-related reporting requirements. It is estimated that approximately \$445,583 will need to be allocated over the four year project period for this critical position.

Site Data Collection Managers at each community college site. IERTC values and relies upon quality data to make informed, evidence-based decisions. In order to expand data collection opportunities and ensure that all collected data possesses integrity, the IERTC consortium intends to dedicate personnel at each community college site to ensure that data is reviewed and updated on a regular basis and that strict data collection protocol are adhered to. Site Data Managers will assist community college institutional research and information technology offices in reviewing COMIS data submissions, engaging in referential and syntactical reviews that align with CCCCCO COMIS review guidelines. Site Data Managers will also function as the coordinators for each college on the CTE Employment Outcomes Survey. Additionally, Site Data Managers will facilitate collection of other pertinent institutional data that must be manually entered into LaunchBoard (e.g., licensure examination pass rates). Excluding Chaffey College, an average of \$183,960 will need to be allocated annually to each of the seven remaining community college consortium members to coordinate data collection, review, input, and survey efforts.

*Summary Evaluation Plan
 Chaffey Community College District – Inland Empire Regional Training Consortium (IERTC)
 Trade Adjustment Assistance Community College and Career Training (TAACCCT) Grants Program*

I. Summary Evaluation Plan

Throughout the grant period, the Chaffey Community College District (CCCD), along with its Inland Empire Regional Training Consortium (IERTC) partners and third-party evaluator ICF International (ICF), will facilitate a comprehensive evaluation of the IERTC project. The quasi-experimental comparison-cohort mixed-method evaluation model will occur concurrently with an evaluation of the consortium's Ladders Project. The model will allow for the collection, analysis, and reporting of robust data. The impact evaluation for each project will measure outcomes such as program completion, credential attainment, job attainment, job retention, and wages, among others. Data will be analyzed to measure the degree to which the projects expand and improve advanced manufacturing opportunities for targeted populations. The implementation evaluation for each project will track progress and fidelity to the project's model; report lessons learned throughout program implementation; measure perceived program strengths, weaknesses and value to participants, partners, and faculty/staff; and recommend modifications to improve performance. The evaluator's approach will ensure CCCD and its consortium member colleges understand not only the outputs and outcomes of the programs, but also the underlying processes, assumptions, modifications, successes, and obstacles that led to those results.

Exhibit 1 Proposed Evaluation Strategy

Research Questions	Data Source	Data Analysis
Outcomes Evaluation		
1. To what extent did project activities influence: Program completion, retention, and certification rates; credential attainment; placement into employment; employment retention; and average earnings for those who retain employment	Institutional records, participants, employers, and UI wage records	Propensity score matching, surveys, measures of central tendency, regression analysis
Implementation Evaluation		
2. How were the advanced manufacturing and technology curriculum created or selected and utilized?	Consortium members and key program stakeholders	Document review, observations, and interviews
3. How program designs were improved or expanded using grant funds? What delivery method was offered? What was the program administrative structure? What supports or services were offered?	Consortium members (including program faculty and staff)	Document review, interviews, and surveys

Summary Evaluation Plan

Chaffey Community College District – Inland Empire Regional Training Consortium (IERTC)

Trade Adjustment Assistance Community College and Career Training (TAACCCT) Grants Program

<p>4. Are in-depth assessment of participant abilities, skills, and interests conducted to select or enroll individuals into the program being evaluated? What assessment tools and process were used? Who conducted the assessments? How were the assessment results used? Were the assessment results useful in determining the appropriate program and course sequence for participants? Was career guidance provided? If so, through what methods?</p>	<p>Program faculty, participants, and staff</p>	<p>Document review, interviews, and surveys</p>
<p>5. What contributions did each of the partners and other key stakeholders make towards: 1) program design, 2) curriculum development, 3) recruitment, 4) training, 5) placement, 6) program management, 7) leveraging of resources, and 8) commitment to program sustainability? What factors affected partner involvement or lack of involvement? Which contributions from partners were most critical to the success of the grant program? Which contributions from partners had less of an impact?</p>	<p>Consortium members and key program stakeholders</p>	<p>Document review, observations, and interviews</p>

II. Proposed Evaluation Timeline

The evaluation process will produce three main reports: (1) a Final Evaluation Design Report, outlining the full scope and methodology for the evaluation; (2) an Interim Report to be delivered at the end of second year of the project, which will include progress toward outcomes, qualitative impacts on participants, lessons learned to date, methodologies employed, and recommendations for program modifications, if any; and (3) a Final Program Report to be delivered at the end of the fourth year of the project, which includes all the components of the summary reports and the results of the participant impact analysis and program implementation analysis.

Exhibit 2: Proposed Evaluation Timeline

Activity	Anticipated Dates
Kickoff meeting, to prepare for evaluation design plan, and the development of logic model, communications plan, and internal timelines	Within 45 days of the notice of award
Draft Evaluation Design Plan, including logic model, data collection plan, and data analysis plan	October - November 2014
Develop tools, protocols, and instruments for data collection for the implementation evaluation and outcomes/impact evaluation	December 2014 – January 2015
Develop criteria and plan for the creation of treatment and comparison group cohorts for the outcomes/impact evaluation	December 2014 – January 2015
Data collection and analysis activities for the implementation evaluation	February 2015 – January 2017
Data collection and analysis activities for the outcomes/impacts evaluation	February 2015 - March 2018
Draft and submit Interim Report	October 2016
Final Report	July - August 2018

III. Analysis of Participant (Net) Impact or Outcomes

Study methodology and rationale. The outcomes evaluation will utilize a quasi-experimental design (QED) for both the evaluation of the IERT program and the evaluation of the integrated Career Ladders Project. The methodology described below will apply to both projects, a comparison group will be identified in each case, and the resulting data will be stored, cleaned, analyzed, and reported. While a randomized control trial would be preferred, a QED is appropriate given the 1) moderate number of TAA-eligible or similar adult participants; 2) focus on program development, implementation, and improvement; and 3) availability of several valid comparison control cohorts of students (both current and past).

Assignment to comparison group. In lieu of random assignment, historical data will be collected to establish comparison cohorts via Propensity Score Matching (PSM) and Minimal Detectable Estimates (MDE) will be obtained and reported. Propensity Score Matching (PSM) is a statistical technique for understanding counterfactuals and other limitations that typically occur in quasi-experimental research. PSM allows for a set of covariates to be used with a propensity score estimate for each research participant. Participant data will be stratified into homogenous subgroups according to propensity scores and then compared to determine outcomes. The PSM technique provides an adjustment for selection bias. The adjustment allows for strong inferences of program effects, even in the absence of randomized selection.

Source and size of comparison group. The two comparison groups, equivalent in number to the size of the treatment groups, will be comprised of cohorts of Advanced Manufacturing and Career Ladders Project students. These students commenced their studies two years prior to each of the treatment cohorts who will start their studies and will be exposed to the interventions. The project is expected to treat approximately 2,500 students over the life of the grant, and assuming a similar number of control group participants, the evaluations will be well powered.

Summary Evaluation Plan

*Chaffey Community College District – Inland Empire Regional Training Consortium (IERTC)
Trade Adjustment Assistance Community College and Career Training (TAACCCT) Grants Program*

Outcomes for comparison. The outcome measures that will be analyzed as part of the outcomes analysis include: program completion, retention, and certification rates; credential attainment; placement into employment; employment retention; and average earnings for those who retain employment. Outcomes data will be collected and analyzed at the participant level through surveys, extant college data, and third party administrative databases to include unemployment insurance wage records (if available). The highest level of precautions will be taken to protect identifying student information. Personally identifiable information will be transmitted using a secure data system that is approved by the U.S. Department of Labor, Employment and Training Administration (DOL ETA). All confidential electronic data collected will be transferred using a secure FTP and maintained on an access-limited secure server. A minimum number of individuals will be given access to individual-identifying information. Online data collection will be encrypted and hosted on a separate secure server with a state of the art firewall.

Fidelity to the Program Model. Evaluation fidelity will be controlled through a three-phased logic model. The logic model for each of the two interventions will (1) be developed and explicitly specify the domains and measures to be studied (including key inputs, activities, mediators, and outcomes), (2) specify data measures and present detailed line logic and hypothesized relationships; and (3) describe the measures utilized to determine if and to what extent the proposed treatment conditions result in the intended outcomes. The logic models will ensure that we know whether and to what extent the projects are effective.

IV. Program Implementation Analysis

Study methodology. The implementation evaluation will analyze the steps taken by the Consortium to (a) create and run the proposed projects, (b) analyze the operational strengths and weaknesses of the proposed projects, and (c) suggest how implementation activities might be strengthened. Interviews, focus groups, site visits, and surveys will be utilized to collect implementation study data. Where possible, data will be collected concurrently for both the IERTC and the Career Ladders Project evaluations. The

*Summary Evaluation Plan
Chaffey Community College District – Inland Empire Regional Training Consortium (IERTC)
Trade Adjustment Assistance Community College and Career Training (TAACCCT) Grants Program*

evaluations will address the essential research questions listed in the TAACCCT Solicitation Grant Application and appear in Exhibit 1.

The implementation analysis will begin with an upfront SWOT analysis. The SWOT analysis will provide a baseline for assessing the actual strengths and weaknesses of the project post-implementation. To gain a better understanding of initial design and implementation processes and documentation, interviews will be conducted with key program stakeholders. Site visits will be utilized to observe key meetings, review project documentation, and conduct focus groups with a sample of program participants and key program personnel. Surveys will be administered to program stakeholders to determine the strengths and weaknesses of program implementation. Data will be analyzed to provide timely feedback and to inform program implementation activities and decisions. The data will clarify the lessons learned and may lead to the development of best practices, support for project enhancements, and other program activities that connect workers with sustainable wages and career advancement opportunities.

V. Identification of Third-Party Evaluator

Chaffey Community College District has selected ICF International to conduct the third-party evaluation of the IERTC Project, which includes the optional Advanced Career Pathways component. ICF provides extensive evaluation capacity and knowledge, and currently serves as the third-party evaluator for six TAACCCT grantees, including two consortium grants, and one Workforce Innovation Fund grantee who is implementing an innovative career pathways model which is being applied to ten community colleges located in four states. ICF also serves as a research and evaluation contractor to the U.S. Department of Labor's Chief Evaluation Office and is a member of the Federal Inter-agency Career Pathways Workgroup, led by the U.S. Departments of Labor, Education, and Health and Human Services.

Project/Performance Site Location(s)

Project/Performance Site Primary Location I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name:

DUNS Number:

* Street1:

Street2:

* City: County:

* State:

Province:

* Country:

* ZIP / Postal Code: * Project/ Performance Site Congressional District:

Project/Performance Site Location 1 I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name:

DUNS Number:

* Street1:

Street2:

* City: County:

* State:

Province:

* Country:

* ZIP / Postal Code: * Project/ Performance Site Congressional District:

Project/Performance Site Location 2 I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name:

DUNS Number:

* Street1:

Street2:

* City: County:

* State:

Province:

* Country:

* ZIP / Postal Code: * Project/ Performance Site Congressional District:

Project/Performance Site Location(s)

Project/Performance Site Location 3

I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: College of the Desert

DUNS Number: 0795526750000

* Street1: 43500 Monterey Ave

Street2:

* City: Palm Desert

County: Riverside

* State: CA: California

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 92260-2499

* Project/ Performance Site Congressional District: CA-036

Project/Performance Site Location 4

I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: Mt. San Jacinto Community College District

DUNS Number: 0781509680000

* Street1: 1499 North State Street

Street2:

* City: San Jacinto

County: Riverside

* State: CA: California

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 92583-3354

* Project/ Performance Site Congressional District: CA-041

Project/Performance Site Location 5

I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: Victor Valley College

DUNS Number: 0735835770000

* Street1: 18422 Bear Valley Rd.

Street2:

* City: Victorville

County: San Bernardino

* State: CA: California

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 92395-5849

* Project/ Performance Site Congressional District: CA-008

Project/Performance Site Location(s)

Project/Performance Site Location 9

I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: MiraCosta College Technology Career Institute

DUNS Number: 0787533650000

* Street1: 2075 Las Palmas Drive

Street2:

* City: Carlsbad

County: San Diego

* State: CA: California

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 92011-1519

* Project/ Performance Site Congressional District: CA-049

Project/Performance Site Location 10

I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: University Enterprises Corp. at CSUSB

DUNS Number: 0305792130000

* Street1: 5500 University Parkway

Street2:

* City: San Bernardino

County: San Bernardino

* State: CA: California

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 92407-2318

* Project/ Performance Site Congressional District: CA-031

Project/Performance Site Location 11

I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: The Regents of the University of California, Riverside Campus

DUNS Number: 6277974260000

* Street1: 200 University Office Building

Street2:

* City: Riverside

County: Riverside

* State: CA: California

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 92521-0217

* Project/ Performance Site Congressional District: CA-041

Project/Performance Site Location(s)

Project/Performance Site Location 6

I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: San Bernardino Valley College

DUNS Number: 8270702490000

* Street1: 701 S. Mt. Vernon

Street2:

* City: San Bernardino

County: San Bernardino

* State: CA: California

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 92410-2705

* Project/ Performance Site Congressional District: CA-043

Project/Performance Site Location 7

I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: Crafton Hills College

DUNS Number: 0735942280000

* Street1: 11711 Sand Canyon Road

Street2:

* City: Yucaipa

County:

* State: CA: California

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 92399-1799

* Project/ Performance Site Congressional District: CA-008

Project/Performance Site Location 8

I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: Riverside City College

DUNS Number: 1102502840000

* Street1: 4800 Magnolia Avenue

Street2:

* City: Riverside

County: Riverside

* State: CA: California

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 92506-1299

* Project/ Performance Site Congressional District: CA-044

Project/Performance Site Location(s)

Additional Location(s)

Add Attachment

Delete Attachment

View Attachment

Attachment E: Negotiated Indirect Cost Rate Agreement (if applicable)

COLLEGES AND UNIVERSITIES RATE AGREEMENT

EIN:

DATE: 02/26/2013

ORGANIZATION:

Chaffey Community College District
5885 Haven Ave
Rancho Cucamonga, CA 91737-3002

The rates approved in this agreement are for use on grants, contracts and other agreements with the Federal Government, subject to the conditions in Section III.

SECTION I: Facilities And Administrative Cost Rates

RATE TYPES: FIXED FINAL PROV. (PROVISIONAL) PRED. (PREDETERMINED)

EFFECTIVE PERIOD

<u>TYPE</u>	<u>FROM</u>	<u>TO</u>	<u>RATE (\$)</u>	<u>LOCATION</u>	<u>APPLICABLE TO</u>
PRED.	11/01/2012	06/30/2017	30.00	On-Site	All Programs
PROV.	07/01/2017	06/30/2018	30.00	On-Site	All Programs

*BASE

Modified total direct costs, consisting of all salaries and wages, fringe benefits, materials, supplies, services, travel and subgrants and subcontracts up to the first \$25,000 of each subgrant or subcontract (regardless of the period covered by the subgrant or subcontract). Modified total direct costs shall exclude equipment, capital expenditures, charges for patient care, student tuition remission, rental costs of off-site facilities, scholarships, and fellowships as well as the portion of each subgrant and subcontract in excess of \$25,000.

ORGANIZATION: Chaffey Community College District
AGREEMENT DATE: 2/26/2013

SECTION II: SPECIAL REMARKS

TREATMENT OF FRINGE BENEFITS:

The fringe benefits are specifically identified to each employee and are charged individually as direct costs. The directly claimed fringe benefits are:

HEALTH CARE, DENTAL CARE, VISION CARE, LIFE INSURANCE, RETIREMENT PLANS, FICA, WORKERS COMPENSATION.

TREATMENT OF PAID ABSENCES

Vacation, holiday, sick leave pay and other paid absences are included in salaries and wages and are claimed on grants, contracts and other agreements as part of the normal cost for salaries and wages. Separate claims are not made for the cost of these paid absences.

Equipment means article of nonexpendable, tangible personal property having a useful life of more than one year and an acquisition cost of \$5,000 or more per unit.

ORGANIZATION: Chaffey Community College District

AGREEMENT DATE: 2/26/2013

SECTION III: GENERAL

A. LIMITATIONS:

The rates in this agreement are subject to any statutory or administrative limitations and apply to a given grant, contract or other agreement only to the extent that funds are available. Acceptance of the rates is subject to the following conditions: (1) Only costs incurred by the organization while included in its facilities and administrative cost pools as finally accepted; such costs are legal obligations of the organization and are allowable under the governing cost principles; (2) The same costs that have been treated as facilities and administrative costs are not claimed as direct costs; (3) Similar types of costs have been recorded consistent accounting treatment; and (4) The information provided by the organization which was used to establish the rates is not later found to be materially incomplete or inaccurate by the Federal Government. In such situations the rate(s) would be subject to renegotiation at the discretion of the Federal Government.

B. ACCOUNTING CHANGES:

This Agreement is based on the accounting system purported by the organization to be in effect during the Agreement period. Changes to the method of accounting for costs which affect the amount of reimbursement resulting from the use of this Agreement require prior approval of the authorized representative of the cognizant agency. Such changes include, but are not limited to, changes in the charging of a particular type of cost from facilities and administrative to direct. Failure to obtain approval may result in cost disallowances.

C. FIXED RATES:

If a fixed rate is in this Agreement, it is based on an estimate of the costs for the period covered by the rate. When the actual costs for this period are determined, an adjustment will be made to a rate of a future year(s) to compensate for the difference between the costs used to establish the fixed rate and actual costs.

D. USE BY OTHER FEDERAL AGENCIES:

The rates in this Agreement were approved in accordance with the authority in Office of Management and Budget Circular A-21, and should be applied to grants, contracts and other agreements covered by this Circular, subject to any limitations in A above. The organization may provide copies of the Agreement to other Federal Agencies to give them early notification of the Agreement.

E. OTHER:

If any Federal contract, grant or other agreement is reimbursing facilities and administrative costs by a means other than the approved rate(s) in this Agreement, the organization should (1) credit such costs to the affected programs; and (2) apply the approved rate(s) to the appropriate base to identify the proper amount of facilities and administrative costs allocable to these programs.

BY THE INSTITUTION:

Chaffey Community College District

(INSTITUTION)

(SIGNATURE)

Ciriaco Q. Pinedo

(NAME)

Associate Superintendent

(TITLE)

(DATE)

ON BEHALF OF THE FEDERAL GOVERNMENT:

DEPARTMENT OF HEALTH AND HUMAN SERVICES

(AGENCY)

(SIGNATURE)

Arif Karim

(NAME)

Director, Division of Cost Allocation

(TITLE)

2/26/2013

(DATE) 1478

DHS REPRESENTATIVE:

Jeanette Lu

Telephone:

(415) 437-7820