



PLAN. INVEST. TRACK.

Fund: SWP Regional Share (40%), Year: 2017-18 Produced: Apr 17, 2018, 11:15 AM PDT



IEDRC P05 Updating Automotive Labs-Electric Vehicle (EV) and Hybrid Instruction

Description

DESCRIPTION: Provides vehicles, diagnostic equipment, manufacturer information, and faculty professional development needed to keep the region's automotive technology programs up-to-date with industry trends and its automotive students up-to-date with marketable skills.

INDUSTRY SECTORS: Advanced Transportation & Renewables;

START DATE: Tue Jan 01 2019

END DATE: Tue Jun 30 2020

LEAD INSTITUTION: College of the Desert

READ THE SWP LEGISLATION: Yes

MEETS REQUIREMENTS OF SWP LEGISLATION: Yes

WHAT NEEDS MOTIVATE THIS PROJECT AND HOW WILL THE PROJECT ADDRESS THESE NEEDS?

Two major auto manufacturers (Toyota and GM) have announced a transition to electric vehicles. Several nations have announced a transition to electric vehicles, banning internal combustion engines. California has set a goal of putting 1.5 million electric vehicles on the road by 2030. These changes represent a trend that is beginning to shape the global automotive market. This project will continue the progress made under Updating Automotive Labs - EV & Hybrid Instruction for equipping labs, faculty professional development, and aligning curriculum to keep pace with industry trends. It will provide the knowledge and skills needed by graduates to secure employment in this rapidly changing industry. When combined with sector marketing and recruitment efforts underway, this project will reshape the image of automotive careers, increase student interest and enrollment, and improve completion rates across the region. According to Centers of Excellence LMI, 2062 automotive service technicians, managers, and diesel specialists will be needed each year to fill new positions between 2016 and 2021. Our region's nine automotive programs are currently graduating 221 students from their certificate and degree programs (current 3-year average). Even after adding the commercial school UTI completion rate, an annual gap of 824 technician jobs remain to be filled in our region. This proposal is to continue updating the region's automotive labs after Round 1 investments in order to respond instructionally to emerging technologies. It will enable all of our programs to provide skill training that increases student knowledge of advanced systems and ensures their competitiveness in the labor market. Increased levels of preparation and job placement, in combination with current marketing and recruitment activities, will build a reputation that results in higher enrollment and program graduate rates. This project addresses Task Force Recommendations pertaining to Student Success, Curriculum, and CTE Faculty. It supports all sub-regions and the ideal of regional collaboration by including all 9 college automotive programs. It addresses the gap identified in LMI and supply data (824 new and replacement jobs annually) by attracting more students and providing additional industry recognized credentials. This project will strengthen program reputation, quality, and ability to graduate students to compete in the job market. Improving our automotive programs in this manner will continue to result in higher enrollments, higher completions, and higher wages after employment in the industry.

Contacts

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Labor Market Information

Automotive Occupations

OCCUPATIONS:

49-3023 Automotive Service Technicians and Mechanics
 49-3031 Bus and Truck Mechanics and Diesel Engine Specialists
 49-1011 First-Line Supervisors of Mechanics, Installers, and Repairers
 49-2093 Electrical and Electronics Installers and Repairers, Transportation Equipment

REGION: Inland Empire/Desert

SUBREGION: Inland Empire

COUNTY: Riverside, San Bernardino

PROGRAMS:

Barstow College - Automotive Technology (094800)
 Chaffey College - Automotive Technology (094800)
 College of the Desert - Automotive Technology (094800)
 Copper Mountain College - Automotive Technology (094800)
 Mt. San Jacinto College - Automotive Technology (094800)
 Palo Verde College - Automotive Technology (094800)
 Riverside City College - Automotive Technology (094800)
 San Bernardino Valley College - Automotive Technology (094800)
 Victor Valley College - Automotive Technology (094800)

TOTAL DEMAND

2062

TOTAL SUPPLY

1238

DEMAND - SUPPLY

824

Demand Exceeded: Eligible for Funding

Outcomes

Investment Plan

This proposal is to acquire the vehicles, scan/diagnostic tools, and additional professional development needed by each college to ensure that labs are up-to-date and effective instruction is provided on modern vehicle systems. With the proposed continuation, additional new vehicle technologies will be examined, such as autonomous vehicle systems, fuel cell electric vehicles, and clean propulsion systems on heavy-duty vehicles - all of which are beginning to have a presence in the automotive markets. This project is designed to modernize our region's automotive programs and, when combined with a sector-specific outreach and recruitment effort, will dispel outdated notions about auto tech occupations and attract students and parents seeking high-tech occupations. The Updating Automotive Labs program continuation investment will result in: (a) 5% increase in program enrollment for each college automotive program, each year; (b) 6% increase in completion rate at each college, each year; and (c) 20% wage gain for those completing the program, after 1 year in employment. Students completing this training will have the skills needed by a growing segment of the industry thus enhancing employment and earnings potential. The living wage for a single adult living in the Inland Empire/Desert Region is currently \$12.10 per hour according to the MIT Living Wage Calculator. All occupations listed in the above LMI meet this standard at the entry-level except automotive service technician/mechanic. However, this occupation rises above the living wage at the 25th percentile wage of \$12.24 per hour. Simple hourly earnings for all noted occupations range between \$11.03 to \$51.09 per hour. By funding this request in the amount of \$66,000 per college, students will receive a full set of skills for today's emerging automotive markets and help programs convey a positive, high-tech message about automotive careers. As in Round 1, the project will occur in concert with DSN funded activities designed to update the image of automotive occupations and intensify recruitment efforts. Students, parents, and counselors receive professional materials presenting the high-tech image and advanced career options this project features. Working with feeder high school programs, recruitment events are currently being conducted. More effective recruitment in partnership with high school automotive programs will result in increased enrollment, followed by higher job placements to fill the regional gap.

Occupational Clusters

Barstow College - Automotive Technology (094800)

METRIC	BASELINE	BASELINE YEAR
Number of Enrollments	356	2015-16
Number of Students Who Got a Degree or Certificate	6	2015-16

Chaffey College - Automotive Technology (094800)

METRIC	BASELINE	BASELINE YEAR
Number of Enrollments	710	2015-16
Number of Students Who Got a Degree or Certificate	63	2015-16

College Of The Desert - Automotive Technology (094800)

METRIC	BASELINE	BASELINE YEAR
Number of Enrollments	793	2015-16
Number of Students Who Got a Degree or Certificate	37	2015-16

Copper Mountain College - Automotive Technology (094800)

METRIC	BASELINE	BASELINE YEAR
Number of Enrollments	102	2015-16
Number of Students Who Got a Degree or Certificate	4	2015-16

Mt. San Jacinto College - Automotive Technology (094800)

METRIC	BASELINE	BASELINE YEAR
Number of Enrollments	384	2015-16
Number of Students Who Got a Degree or Certificate	14	2015-16

Palo Verde College - Automotive Technology (094800)

METRIC	BASELINE	BASELINE YEAR
Number of Enrollments	379	2015-16
Number of Students Who Got a Degree or Certificate	12	2015-16

Riverside City College - Automotive Technology (094800)

METRIC	BASELINE	BASELINE YEAR
Number of Enrollments	875	2015-16
Number of Students Who Got a Degree or Certificate	38	2015-16

San Bernardino Valley College - Automotive Technology (094800)

METRIC	BASELINE	BASELINE YEAR
Number of Enrollments	511	2015-16
Number of Students Who Got a Degree or Certificate	20	2015-16

Victor Valley College - Automotive Technology (094800)

METRIC	BASELINE	BASELINE YEAR
Number of Enrollments	1394	2015-16
Number of Students Who Got a Degree or Certificate	27	2015-16

Task Force Recommendations**Student Success**

1. Broaden and enhance career exploration and planning, work-based learning opportunities, and other supports for students.
2. Improve CTE student progress and outcomes.

Curriculum

7. Evaluate, strengthen, and revise the curriculum development process to ensure alignment from education to employment.
11. Develop, identify and disseminate effective CTE practices.

CTE Faculty

15. Enhance professional development opportunities for CTE faculty to maintain industry and program relevance.

Regional Coordination

17. Strengthen communication, coordination, and decision-making between regional CTE efforts and the colleges to meet regional labor market needs.
20. Develop robust connections between community colleges, business and industry representatives, labor and other regional workforce development partners to align college programs with regional and industry needs and provide support for CTE programs.

Funding

21. Create a sustained, public outreach campaign to industry, high school students, counselors, parents, faculty, staff, and the community at large to promote career development and attainment and the value of career technical education.

Workplan**Risks**

The only risk to the successful completion of this program is in the level of cooperation by program faculty. Therefore, it is safe to say the risk is low. The automotive program faculty in our region have been exceptionally cooperative in the Updating Automotive Labs for EV and Hybrid Vehicle Instruction project (Round 1), as well as in other region-wide projects our faculty members have identified as being important to the region, e.g. ASE Course Alignment project, Introduction to Automotive Technology Course Alignment project, and the Prime Motivation Outreach and Recruitment events. Collaboration among this sector's faculty is unsurpassed.

RESPONSIBLE PERSON: Larry McLaughlin (lmclaughlin@collegeofthedesert.edu)

LEAD INSTITUTION OR PARTNER: College of the Desert

MAJOR ACTIVITIES: In the first year of this Continuation project, each of the 9 participating college automotive programs will be responsible for: 1) developing specifications and acquiring a new lab vehicle that reflects emerging technologies

PARTICIPATING INSTITUTIONS: Barstow College, Chaffey College, College of the Desert, Copper Mountain CCD, Mt. San Jacinto College, Palo Verde College, Riverside City College, San Bernardino Valley College, Victor Valley College

ACTIVITY TIMEFRAME: Year 1

and market trends (collaborating with other programs and faculty); 2) acquiring the associated manufacturer scan/diagnostic hardware and software, specialized tools, and safety equipment; 3) acquiring manufacturer system information/subscription for the purchased vehicle; and 4) obtaining vehicle or system-related professional development training for faculty

MAJOR OUTCOMES: 1) Automotive programs will have updated labs and curriculum with equipment, information, and skills that reflect industry trends; 2) Faculty members will have acquired new knowledge on emerging systems to impart to their students; 3) Students will have learned on the latest systems, acquiring the knowledge and skills needed in tomorrow's automotive and transportation workplace; and 4) The region's automotive programs will have shaped a positive image of the careers and opportunities available to students, resulting in more effective recruitment, higher enrollments, and higher completion rates.

RESPONSIBLE PERSON: Larry McLaughlin (lmclaughlin@collegeofthedesert.edu)

LEAD INSTITUTION OR PARTNER: College of the Desert

PARTICIPATING INSTITUTIONS: Barstow College, Chaffey College, College of the Desert, Copper Mountain College, Mt. San Jacinto College, Palo Verde College, Riverside City College, San Bernardino Valley College, Victor Valley College

ACTIVITY TIMEFRAME: Year 2

MAJOR ACTIVITIES: In the second year of this Continuation project (last 6 months of 18 month project), each of the 9 college participating automotive programs will be responsible for: 1) integrating new curriculum/information into course(s) established under Round 1; and 2) continued engagement of students at outreach/recruitment events, exhibiting the high-tech vehicles and systems.

MAJOR OUTCOMES: 1) higher level enrollments and completion rates (an additional 5% from baseline); and 2) higher placement rates as a result of enhanced skill-set

Budget Breakdown

Barstow College	SWP Regional Share (40%)	4000 - Supplies and Materials	\$15,000
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Scan/diagnostic hardware and software, specialized tools, safety supplies, manufacturer subscription/information

Barstow College	SWP Regional Share (40%)	5000 - Other Operating Expenses and Services	\$6,000
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Travel and contractual expenses for faculty professional development

Barstow College	SWP Regional Share (40%)	6000 - Capital Outlay	\$56,500
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Vehicle purchase and related equipment

Chaffey College	SWP Regional Share (40%)	4000 - Supplies and Materials	\$15,000
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Scan/diagnostic hardware and software, specialized tools, safety supplies, manufacturer subscription/information

Chaffey College	SWP Regional Share (40%)	5000 - Other Operating Expenses and Services	\$6,000
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Travel and contractual expenses for faculty professional development

Chaffey College	SWP Regional Share (40%)	6000 - Capital Outlay	\$56,500
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Vehicle purchase and related equipment

College of the Desert	SWP Regional Share (40%)	4000 - Supplies and Materials	\$15,000
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Scan/diagnostic hardware and software, specialized tools, safety supplies, manufacturer subscription/information

College of the Desert	SWP Regional Share (40%)	5000 - Other Operating Expenses and Services	\$6,000
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Travel and contractual expenses for faculty professional development

College of the Desert	SWP Regional Share (40%)	6000 - Capital Outlay	\$56,500
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Vehicle purchase and related equipment

Copper Mountain College	SWP Regional Share (40%)	4000 - Supplies and Materials	\$15,000
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Scan/diagnostic hardware and software, specialized tools, safety supplies, manufacturer subscription/information

Copper Mountain College	SWP Regional Share (40%)	5000 - Other Operating Expenses and Services	\$6,000
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Travel and contractual expenses for faculty professional development

Copper Mountain College	SWP Regional Share (40%)	6000 - Capital Outlay	\$56,500
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Vehicle purchase and related equipment

Mt. San Jacinto College	SWP Regional Share (40%)	4000 - Supplies and Materials	\$15,000
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Scan/diagnostic hardware and software, specialized tools, safety supplies, manufacturer subscription/information

Mt. San Jacinto College	SWP Regional Share (40%)	5000 - Other Operating Expenses and Services	\$6,000
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Travel and contractual expenses for faculty professional development

Palo Verde College	SWP Regional Share (40%)	4000 - Supplies and Materials	\$15,000
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Scan/diagnostic hardware and software, specialized tools, safety supplies, manufacturer subscription/information

Mt. San Jacinto College	SWP Regional Share (40%)	6000 - Capital Outlay	\$56,500
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Vehicle purchase and related equipment

Palo Verde College	SWP Regional Share (40%)	5000 - Other Operating Expenses and Services	\$6,000
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Travel and contractual expenses for faculty professional development

Palo Verde College	SWP Regional Share (40%)	6000 - Capital Outlay	\$56,500
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Vehicle purchase and related equipment

Riverside City College	SWP Regional Share (40%)	4000 - Supplies and Materials	\$15,000
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Scan/diagnostic hardware and software, specialized tools, safety supplies, manufacturer subscription/information

Riverside City College	SWP Regional Share (40%)	5000 - Other Operating Expenses and Services	\$6,000
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Travel and contractual expenses for faculty professional development

Riverside City College	SWP Regional Share (40%)	6000 - Capital Outlay	\$56,500
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Vehicle purchase and related equipment

San Bernardino Valley College	SWP Regional Share (40%)	4000 - Supplies and Materials	\$15,000
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Scan/diagnostic hardware and software, specialized tools, safety supplies, manufacturer subscription/information

San Bernardino Valley College	SWP Regional Share (40%)	5000 - Other Operating Expenses and Services	\$6,000
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Travel and contractual expenses for faculty professional development

San Bernardino Valley College	SWP Regional Share (40%)	6000 - Capital Outlay	\$56,500
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Vehicle purchase and related equipment

Victor Valley College	SWP Regional Share (40%)	4000 - Supplies and Materials	\$15,000
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Scan/diagnostic hardware and software, specialized tools, safety supplies, manufacturer subscription/information

Victor Valley College	SWP Regional Share (40%)	5000 - Other Operating Expenses and Services	\$6,000
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Travel and contractual expenses for faculty professional development

Victor Valley College	SWP Regional Share (40%)	6000 - Capital Outlay	\$56,500
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Vehicle purchase and related equipment

Budget Totals

INSTITUTION	CODE	TOTAL
Barstow College	4000 - Supplies and Materials	\$15,000
Barstow College	5000 - Other Operating Expenses and Services	\$6,000
Barstow College	6000 - Capital Outlay	\$56,500
	Barstow College Total:	\$77,500
Chaffey College	4000 - Supplies and Materials	\$15,000
Chaffey College	5000 - Other Operating Expenses and Services	\$6,000
Chaffey College	6000 - Capital Outlay	\$56,500
	Chaffey College Total:	\$77,500
College of the Desert	4000 - Supplies and Materials	\$15,000
College of the Desert	5000 - Other Operating Expenses and Services	\$6,000
College of the Desert	6000 - Capital Outlay	\$56,500
	College of the Desert Total:	\$77,500
Copper Mountain College	4000 - Supplies and Materials	\$15,000
Copper Mountain College	5000 - Other Operating Expenses and Services	\$6,000
Copper Mountain College	6000 - Capital Outlay	\$56,500
	Copper Mountain College Total:	\$77,500
Mt. San Jacinto College	4000 - Supplies and Materials	\$15,000
Mt. San Jacinto College	5000 - Other Operating Expenses and Services	\$6,000
Mt. San Jacinto College	6000 - Capital Outlay	\$56,500
	Mt. San Jacinto College Total:	\$77,500
Palo Verde College	4000 - Supplies and Materials	\$15,000
Palo Verde College	5000 - Other Operating Expenses and Services	\$6,000
Palo Verde College	6000 - Capital Outlay	\$56,500
	Palo Verde College Total:	\$77,500
Riverside City College	4000 - Supplies and Materials	\$15,000
Riverside City College	5000 - Other Operating Expenses and Services	\$6,000
Riverside City College	6000 - Capital Outlay	\$56,500
	Riverside City College Total:	\$77,500
San Bernardino Valley College	4000 - Supplies and Materials	\$15,000
San Bernardino Valley College	5000 - Other Operating Expenses and Services	\$6,000
San Bernardino Valley College	6000 - Capital Outlay	\$56,500
	San Bernardino Valley College Total:	\$77,500
Victor Valley College	4000 - Supplies and Materials	\$15,000
Victor Valley College	5000 - Other Operating Expenses and Services	\$6,000
Victor Valley College	6000 - Capital Outlay	\$56,500
	Victor Valley College Total:	\$77,500
	TOTAL PROJECT COST:	\$697,500



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