



PACIFIC
Research & Evaluation, LLC

Final Evaluation Report

Trade Adjustment Assistance Community College and Career
Training (TAACCCT) Grant: Round 2

**Rural Hawai'i Community Colleges Workforce Development
Project (RH1)**

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Executive Summary

The community colleges that serve the rural islands of Maui, Lanai, Molokai, Kaua'i, and Hawai'i in the state of Hawai'i formed a consortium called the Rural Hawai'i Community Colleges Workforce Development Project (RH1). The consortium's goal was to collaboratively create more responsive educational and training opportunities that support the islands' industries while providing living wage employment. Each island needed to prepare students to work in multiple fields to enable employers to fill positions that often remain vacant for months. RH1 consisted of Kaua'i Community College, Hawai'i Community College, and the University of Hawai'i Maui College (UHMC), which led the consortium. RH1 received a four-year U.S. Department of Labor (DOL) Trade Adjustment Assistance Community College and Career Training (TAACCCT) Round 2 grant in October 2012, and with a no-cost extension, the colleges offered services through June 2016.

The RH1 consortium's proposed statement of work consisted of delivering credit courses that led to certificates and non-credit courses offered at the community colleges on Maui, Kaua'i, and Hawai'i. This program plan was directed at training and employment to address the unique needs of the geographically diverse communities, industries, and workforce of rural Hawai'i. Although many of the courses were non-credit, they were sophisticated and innovative solutions to local employment needs. The RH1 consortium determined that local employers were consistently requesting shorter term, skills-based training that would be appropriate for unemployed and incumbent workers who needed additional training to be eligible for vacant positions. Because these courses were non-credit, they did not count in the outcome measures reportable for TAACCCT, and therefore are not represented in the outcome data provided in this report. Yet, this training often provided new employment for unemployed workers or higher, living wages for incumbent workers and their families.

The original RH1 grant statement of work was not funded at the proposed level, and the consortium could not count participants in non-credit training toward outcomes. Therefore, the consortium revised the statement of work and resubmitted it to DOL, which approved it after a lengthy process. The new proposed outcomes better align with the consortium's goals, while allowing work to continue on non-credit training. Through TAACCCT, the RH1 colleges enhanced courses and certificates in Business and Accounting, Food Innovation (non-credit), Geographic Information Systems (GIS), Sustainability (some non-credit), Plug-in Hybrid Electric Vehicle (PHEV), and Water and Wastewater (some non-credit).

The third-party evaluator, Pacific Research and Evaluation (PRE), conducted an evaluation of the grant, which included interviews with students about their experience of the programs and their outcomes. Prominent themes in students' feedback about the new or modified curriculum included the valuable field experience, the availability of online courses they could take at their own pace, and the ability to learn up-to-date technology for industry sectors such as electric vehicle maintenance, virtual office assistance, and GIS technology. The students appreciated the support they received throughout their training and preparation for employment.

The consortium did not achieve many of their numerical outcome goals, partly as a result of the inability to count students in non-credit programs that were enhanced with TAACCCT funding. The colleges served 1,903 students in credit-based certificate training with an overall completion rate of 13%. The GIS Ecosystem Management Certificate had the highest completion rate at 44%. A factor in the overall low completion rate is that almost half of the students enrolled in credit-based certificate trainings have been

retained in their courses, which means that they are likely still working toward completion. The employment rate for all programs was 26% and the retained employment rate was 28%. By the DOL definition, participants who were employed when they enrolled in the certificate programs (incumbent workers) could not be counted toward employment or retained employment, even if they were underemployed. To be counted as retained in employment, the participant would have to gain employment within the first quarter after completing a certificate and retain employment for two consecutive quarters. Incumbent workers constituted 49% of the RH1 grant participants in credit-based certificate training, which is largely because employees in the local economy needed additional skills to fulfill their employers' needs. Many participants who were incumbent workers received a wage increase after their participation in the RH1 TAACCCT certificate training: 28% overall, 64% in the GIS Ecosystem Management certificate, and 61% in the PHEV certificate. The number of students who received a wage increase (537) exceeded the RH1 consortium's goal (282) by almost two-fold, which also indicates that the consortium did not expect that so many participants would be incumbent workers, another potential reason the colleges did not meet numerical employment goals.

Many factors contributed to positive educational and employment outcome rates for the RH1 consortium. The colleges engaged in a significant effort to improve student success through support services and implementation of policy changes. Program development was geared to the enhancement of certificate programs whose curriculum would fill workforce gaps and make the training more accessible to the people who needed it. PRE's evaluation of these certificate programs is based on the data collected through document reviews, interviews with grant team members and students, and surveys with industry and community partners. The evaluation findings are summarized below.

Prior Learning Assessment (PLA) and Transcript Evaluation: The colleges made substantial progress on implementing system-wide initiatives to award credit for previous knowledge gained through career and life experiences and education from other institutions to help students complete their certificates more quickly. As institutional resources allow, PRE recommends that each college continue to develop and implement PLA and transcript evaluation practices by applying the feedback of students and faculty. The colleges should try to advance the institutionalization of PLA by increasing buy-in from institutional faculty members across all departments. PRE suggests sustaining dedicated transcript evaluators, as has been done at UHMC, and proceeding with efforts to increase student awareness of opportunities for earning credits through transcript evaluation.

Student Support and Retention Services: Student support services are an important component of the TAACCCT grants, which each of the three colleges implemented in ways that made sense for their institution. Through academic and career advising, students' academic and career needs have been addressed more comprehensively because of the RH1 program team's work in this area. PRE recommends that the colleges continue the practice of intrusive advising, (a proactive approach in which grant team members check-in with the students regularly, as institutional resources are available. The work readiness support services should also continue and evolve on each of the campuses as resources are available because these services have proven to be beneficial for students and industry partners by supporting students in obtaining employment. These services included grant team members offering assistance through formal workshops, classroom presentations, and individual meetings. Some of the skills covered in the work readiness sessions were job search and placement, résumé building, interviewing (including mock interviews), time management, and workplace etiquette.

Online Course Delivery: The online courses developed and implemented through the RH1 project have increased course accessibility for the rural communities on each of the islands. When courses were delivered in a compressed format, students found it beneficial to work at their own pace and finish course material more quickly, which allowed them to enter the workforce or advance at their companies on a shorter timeline. Although some of the courses have ceased to be offered online, PRE recommends the use of online programming whenever feasible.

Industry Partner and Community Engagement: During the four years of grant funding, the RH1 consortium and its grant team members excelled at fostering partnerships with local industry partners. The consortium engaged in a comprehensive effort to involve industry partners and community members, which ranged from discerning what employers and community members needed to communicating RH1 training opportunities at the colleges. Community engagement efforts succeeded because a dedicated grant team member at each college worked on these efforts over a period of time. As a helpful grant component, PRE recommends sustaining a consistent community liaison for institutional high priority programs of study as funding allows. Developing a customer relationship management system (CRM) will also help sustain community involvement because such databases help prevent contact fatigue among industry partners and community members. The CRM can also help track communication and relationships to leverage resources and information for the development of initiatives and grant applications.

Grant Directors: In interviews with RH1 grant team members, the evaluators repeatedly heard that grant directors at each of the colleges were integral to the successful implementation of the program. Interviewees spoke positively about the directors' support of grant team members (including grand paid faculty and grant paid educational specialists), communication skills, advocacy for innovation, and ability to organize many complex program elements.

Overall, RH1 was quite successful, and PRE recommends that the colleges continue to partner with one another to surmount the unique barriers of rural Hawai'i communities. The consortium has shown that collaboration fosters innovation in academic programming and student support, and they were able to draw upon industry and community partnerships to effectively respond to local workforce needs.

Introduction

Urban and rural Hawai'i have disparate economic and demographic situations: urban Hawai'i had a population of 1,163,440 people in 2015 and rural Hawai'i had 268,163 people.¹ According to the U.S. Department of Agriculture, in 2014 the average per-capita income in urban Hawai'i was \$48,269, but only \$36,279 in rural Hawai'i. According to the American Community Survey, the poverty rate from 2010 through 2014 was 10.0% for urban areas and 17.2% for rural Hawai'i - a disparity that steadily increased during the latest recession and as the economy has started to grow.² Government programs and educational resources disproportionately target urban areas: urban Hawai'i receives almost 2.5 times more federal spending than rural areas receive.³

In 2009, the American Recovery and Reinvestment Act amended the Trade Act of 1974 to authorize the Trade Adjustment Assistance Community College and Career Training (TAACCCT) grant program. On March 30, 2010, President Barack Obama signed the Health Care and Education Reconciliation Act, which included \$2 billion over four years to fund the TAACCCT program. TAACCCT provides community colleges and other eligible higher education institutions with funds to expand and improve career training programs that can be completed in two years or less, are suited for workers eligible for training under the TAA for Workers program, and prepare program participants for employment in high-wage, high-skill occupations. Through these multiyear grants, the Department of Labor (DOL), in partnership with the Department of Education, assisted higher education institutions in offering adults the skills and credentials needed for high-wage employment while meeting employers' needs for skilled workers.

The community colleges that serve the rural islands of Maui, Lanai, Molokai, Kaua'i, and Hawai'i formed a consortium called the Rural Hawai'i Community Colleges Workforce Development Project (RH1). RH1 consisted of Kaua'i Community College, Hawai'i Community College, and the University of Hawai'i Maui College (UHMC), which led the consortium. The colleges received a four-year TAACCCT Round 2 grant for their RH1 project in October 2012 and, with a no-cost extension, the colleges offered services through June 2016. The consortium's goal was to collaboratively create more responsive educational and training opportunities that support each island's industries while providing the communities with opportunities for living wage employment. Each island needed to prepare small numbers of students to work in multiple fields, which would enable employers to fill positions that often remained vacant for months (sometimes years) and circumvent the need to recruit employees from the mainland (associated with high turnover). These vacancies meant that unlicensed laborers often performed the work or services were simply not offered.³

RH1's focus was to build the capacity to enhance effective, innovative curriculum to address geographic and accessibility disparities; provide education and training courses that would increase students' skills and attainment of certificates and credentials; and fulfill specific industry needs through enhanced student support services. The overall assumption was that these efforts would lead to improved learning outcomes

¹ U.S. Department of Agriculture, Economic Research Service (2016). Hawai'i State Fact Sheet. Retrieved from <http://www.ers.usda.gov/data-products/state-fact-sheets/state-data.aspx?StateFIPS=15&StateName=Hawai'i>.

² U.S. Department of Agriculture, Economic Research Service (2016). Hawai'i State Fact Sheet. Retrieved from <http://www.ers.usda.gov/data-products/state-fact-sheets/state-data.aspx?StateFIPS=15&StateName=Hawai'i>.

³ Rural Hawai'i Community Colleges Workforce Development Program Technical Proposal submitted to Department of Labor for TAACCCT Round 2.

and retention rates for students, culminating in living wage employment opportunities for unemployed or underemployed people on the islands of Maui, Kaua’i, and Hawai’i. The RH1 educational courses were Business and Accounting; Geographic Information Systems (GIS) Ecosystem Management; Food Innovation; Sustainability, including Water and Wastewater; and Electric Vehicle/Plug-in Hybrid Electrical Vehicle (EV/PHEV).

Research Plan

Implementation Evaluation

In December 2015, RH1 partnered with Pacific Research and Evaluation (PRE) to conduct the third-party evaluation of the RH1 program. PRE designed and implemented an evaluation plan to address components required by DOL. Table 1 summarizes the methods used for addressing each of the formative evaluation questions.

Table 1. Evaluation Methods

Evaluation Question	Evaluation Method
Analyze the steps taken by the institution to create and run the training program.	Grant Team Member Phone Interviews and Document Reviews
Assess the operational strengths and weaknesses of the project after implementation.	Grant Team Member Phone Interviews and Document Reviews
How was curriculum selected, used, or created?	Grant Team Member Phone Interviews and Document Reviews
How were programs and program design improved or expanded using grant funds?	Grant Team Member Phone Interviews and Document Reviews
What delivery methods were offered?	Grant Team Member Phone Interviews and Document Reviews
What was the program administrative structure?	Grant Team Member Phone Interviews and Document Reviews
What support services and other services were offered?	Grant Team Member Phone Interviews and Document Reviews
Did grantees conduct an in-depth assessment of participants’ abilities, skills, and interests to select participants into the grant program?	Grant Team Member Phone Interviews and Document Reviews
What assessment tools and processes were used?	Grant Team Member Phone Interviews and Document Reviews
Who conducted the assessment?	Grant Team Member Phone Interviews and Document Reviews
How were the assessment results used?	Grant Team Member Phone Interviews and Document Reviews
Were assessment results useful in determining the appropriate program and course of sequence for participants?	Grant Team Member Phone Interviews and Document Reviews
Was career guidance provided, and if so, through what methods?	Grant Team Member Phone Interviews and Document Reviews Student Phone Interviews
Contributions each partner made in the following areas: <ul style="list-style-type: none"> • Program Design • Curriculum Development • Recruitment • Training • Placement • Program Management 	Grant Team Member Phone Interviews and Document Reviews Industry Partner Survey

Evaluation Question	Evaluation Method
<ul style="list-style-type: none"> Leveraging of Resources Commitment to program sustainability 	
What factors contributed to partners' involvement or lack of involvement in the program?	Grant Team Member Phone Interviews Industry Partner Survey

Impact Evaluation - Design Limitations

PRE began the evaluation in the fourth year of the grant and collected quantitative and qualitative outcome data to complete the final evaluation. Given the small populations of Hawai'i, Kaua'i, and Maui, along with insufficient enrollment in each of the certificate areas, it was not possible to implement a quasi-experimental design with experimental and comparison groups. There would have been too many confounding variables in seeking a comparison population outside of the rural islands because the certificate courses were created to serve communities with similar economic situations (e.g., rural with a limited industrial base). Additionally, there is not a uniform course number structure in the University of Hawai'i system, and those course numbers change relatively often. Many of the courses had significant enhancements, as a result of the grant funding, and some courses are non-credit, while others are credit-based. Consequently, there is no way to track students using a course code mechanism on each rural island, which makes a quasi-experimental comparison cohort design impossible. Participant education and outcome data therefore appear only in the TAACCCT Outcomes section.

Program Development

What was the program administrative structure?

The three colleges wrote the grant together, focusing on cohesive educational courses that could train students for the workforce sectors on all three islands that needed employees. The UHMC RH1 grant team members led the consortium, and on each island grant directors and grant teams created work plans that served the needs of each island's workforce communities while meeting common TAACCCT educational and employment outcome goals. Grant directors and grant teams worked with campus administration on each island, faculty, grant paid faculty, grant paid educational specialists, grant paid transcript evaluators, and other student support staff including but not limited to student success specialists, counselors, career navigation specialists, internship coordinators and tutors. Each community college utilized its own management structure that aligned with the college's system. In the beginning stages of the grant, all island grant directors convened monthly at in-person meetings, at the suggestion of their federal project officer. As the consortium leader, UHMC grant director served as the liaison with DOL for compliance and reporting.

Each of the colleges assessed its quarterly progress on certain measures in a report submitted to the UHMC RH1 grant director, who then compiled all of the information in one document to submit to DOL through its online system for quarterly narrative progress reports. For annual progress reports submitted to DOL, the consortium utilized a uniform tracking system for student outcomes.

Course Development

Analyze the steps taken by the institution to create and run the training program

RH1 built on the momentum and relationships developed through three other consortium projects, the Rural Development Program (RDP) grant, the Rural Job Training Initiative (RJTI) and the Community College Career Training (C3T) TAACCCT Round 1 grant. DOL awarded the first grant to RDP in 1997. It was initially focused on the island of Lanaʻi, and funding was directed toward developing leadership training, youth mentoring programs, and computer literacy training. DOL funded similar programs on Maui, Molokaʻi, Kauaʻi, and Hawaiʻi. In 2002 and 2003, UHMC received DOL funding to support continued development of the RDP and RJTI on Maui, Molokaʻi, Lanaʻi, Kauaʻi, and the island of Hawaiʻi. UHMC grant directors acted as the lead for these projects. The RDP continued to direct resources to leadership and computer literacy training at the colleges, with the addition of small business support, computer literacy training, and farm management training. The RJTI focused on developing the job-readiness skills of the islands' residents in rural communities. Educational content prioritized high-demand professions such as education and health care.⁴

The C3T TAACCCT Round 1 grant was a consortium of all the community colleges in the University of Hawaiʻi system. The aim of the project was to create new training programs and enhance existing ones in the agriculture, energy, and health sectors. The grant's goals were to accelerate academic and training progress for low-skilled and other workers, improve retention and achievement rates, reduce the time to complete college credentials, build programs that met industry needs including the development of career pathways, and to strengthen online and technology-enhanced learning.

The RH1 grant team members leveraged much of what had been learned through the C3T in writing and implementing their grant. The three community colleges identified appropriate training areas based on consultations with local industry partners and the resident communities of the rural islands. The three college teams then wrote the grant together, utilizing and expanding on existing resources and industry partner relationships to implement a successful consortium-based TAACCCT Round 2 program. The UHMC RH1 grant team members led the consortium, drawing upon their experience managing previous large projects involving multiple colleges in the state of Hawaiʻi.

How was curriculum selected, used, or created?

The consortium sought feedback from the communities, industry partners, and small businesses on each of the three islands regarding which sectors would be most beneficial to select for enhanced training opportunities. For the certificate training areas listed below, the colleges administered surveys to help determine the skillsets and number of people needed to fill jobs. All of the certificate areas had advisory committees, but in a few cases, these advisory committees did not meet regularly or have stable membership. For example, the RH1 grant team helped Maui's business certificate trainings revitalize its advisory committee. To accomplish this, grant team members engaged in a focused advisory committee recruitment effort, followed by a thorough program review. Frequent meetings were scheduled to keep the new committee committed. Sometimes, as in the case of GIS, the grant team members learned from

⁴ Information in this paragraph is from two sources: University of Hawaiʻi Manoa (2003, July 15). Maui Community College Receives \$10 Million in Grants for Rural Development and Job Training Programs: Largest award to date to a community college in Hawaiʻi. Retrieved from <https://manoa.Hawaiʻi.edu/news/article.php?ald=578> and University of Hawaiʻi Manoa (2002, September 9). Maui Community College Receives \$6.9 Million in Grants in Grants for Rural Development and Job Training Programs. Retrieved from <https://manoa.Hawaiʻi.edu/news/article.php?ald=355>.

industry partners that a curriculum update was needed to reflect evolving sector technology, which included updates to equipment, hardware, and software.

The team at Kaua'i Community College performed outreach to small businesses and stakeholders, asking how certificate trainings could increase the employability of students and what skill gaps they had noted in the local workforce. Automotive industry employers wanted workers who had the training to repair alternative fuel or electric vehicles because there were many such cars on the island, but not enough workers with the skills to repair them. As a result of this feedback, the automotive program coordinator/instructor at Kaua'i Community College traveled to the mainland to receive training to repair these vehicles, and subsequently developed curriculum to teach others to do so. The business community needed reliable employees with good accounting skills, math skills, and a solid work ethic, which resulted in curriculum being developed for three additional certificates in Business and Accounting, with support in soft skills. Industry partners in the sustainability sector listed specific areas in which they needed trained employees: water and waste water, sustainable building design, and construction and operations. This feedback led to the hiring of a program instructor to develop curriculum in these areas. These are just a few illustrations of feedback that led directly to program development or enhancement.

A predominant aim of the RH1 consortium was to make courses available online and in a compressed format. This format serves the needs of the rural communities on each island by addressing the challenges of traveling to campus and the schedules of working people with families. Compressing the curriculum allows students to complete coursework in half the time of a traditional format (eight weeks versus 16 weeks). The compressed curriculum offers students the potential of entering or returning to the workplace more quickly, or earning wage increases to attain family-sustaining wages.

Rural Hawai'i Training Programs by College

How were programs and/or program design improved or expanded using grant funds?

The RH1 consortium needed to revisit the courses to be delivered at each community college because the consortium received less funding than requested in the technical proposal and DOL clarified the definition of "programs of study to only include credit-based certificate programs." Working with DOL to realign the statement of work was a lengthy process, which negatively affected the consortium's ability to create some programmatic innovations to best serve the rural Hawai'i workforce (see the Program Constraints section for more information). Despite these challenges, the RH1 consortium was able to enhance a significant number of certificate programs at the community colleges to positively affect the communities they serve. Table 2 lists the training and certificate programs that were developed or enhanced with DOL funds for each community college.

Table 2. RH1 Training Offered at Each RH1 College

Program	Community College		
	UHMC	Hawai'i	Kaua'i
Business and Accounting	✓	✓	✓
Food Innovation	✓	✓ ¹	✓ ¹
Geographical Information System (GIS) Ecosystem Management	✓	✓ ²	✓ ²
Sustainability	✓	✓	✓
Plug-In Hybrid Electric Vehicle (PHEV)			✓
Water and Wastewater	✓		

¹ Offered through UHMC online

² Offered through UHMC online, labs were held on all three campuses

University of Hawai'i, Maui College

Business and Accounting: UHMC developed credit courses that students could complete to earn credentials and certifications, and non-credit courses, which did not lead to credentials or certifications. In year two of the grant, UHMC participated in Google's *Get Your Business Online*, a national initiative that helped the college hold a locally sponsored event focused on employer engagement and participant outreach. As a direct result of this initiative, UHMC offered additional non-credit classes.

After hiring a new program coordinator for the UHMC Business Careers program, grant team members used TAACCCT resources to perform outreach to create a new advisory committee for related business certificates. At the time of the evaluation, the committee members had been meeting regularly, which was not happening before. One of the goals of the new program coordinator and advisory committee was to complete a certificate curriculum review, with the intention of modifying the business certificates to make them more streamlined and focused on particular skills that better meet the needs of local industries, with the potential for online delivery. These modifications would provide students with a more focused education geared toward entry-level management and entrepreneurship opportunities.

Through the RH1 grant, UHMC developed courses for a new Virtual Office Assistant certificate as part of the Business Careers program; students earn a certificate after completing the 23-credits of course material. The training, with the exception of the internship, is completely online and prepares students with the skills and knowledge to provide administrative support in a virtual setting. This courses and certificate are especially beneficial for individuals in rural communities who might find it difficult to travel to campus. It would be ideal for the internship to be available remotely, as a way to facilitate completing the certificate without the need to travel at all. The employment opportunities that result from completing the certificate allow students to work from home for businesses located anywhere. This is especially beneficial for people living in rural or island communities who often encounter geographic barriers to employment. The certificate is also suitable for an aging workforce with possible mobility problems because this population can work from home, as one participant of the certificate program described to PRE evaluators in an interview.

Food Innovation: This training was tailored to meet the needs of the food industry in the state of Hawai'i. The intention was to scale the training statewide as a non-credit to credit pathway within the University of Hawai'i system to coordinate Food Innovation programs and enable cost-effective resource use on each

island. UHMC's instructional design team completed the development of online non-credit courses in food innovation, which were being offered at the time of the evaluation. All of the assessments are online and conferral of the corresponding non-industry-recognized certificates is automated upon completion, with no instructor input needed. These courses can also be applied in other tropical climates in the South Pacific, including Samoa, Guam, and the Marshall Islands, which illustrates the far-reaching impact of offering full training programs online. Because this is a non-credit program, student educational and employment attainment did not count toward DOL outcome numbers.

GIS Ecosystem Management: UHMC grant team members took the lead in developing curriculum for a new Geographic Information Systems (GIS) Ecosystem Management Certificate. The grant paid educational specialist who initiated the course development had strong working relationships with a number of industry partners on the island through many years of working in the field. These relationships were useful for obtaining industry input on up-to-date technology integration and desired skills for people entering the workforce in this sector. The UHMC grant paid educational specialist also worked with grant paid faculty, grant paid educational specialists and other grant team program members at the community colleges to refine the course details, along with industry partners in those communities, for a total of more than 100 partners involved statewide. The course content was divided into modules with the help of an instructional design team and placed online. There are no textbooks and program instructors do not lecture; instead, everything the student needs for learning the course material is online, with the exception of lab work, with interactive electronic quizzes.

Because of the applied nature of work in the GIS sector, it is important to have campus and site work as well. As a result, the certificate was developed as a hybrid model with online and campus components. The grant paid educational specialist at UHMC planned campus work or fieldwork trips to different locations, such as a small business or organization, every other week during the course. In this fieldwork, students were taught to collect data and analyze it in the same manner that they would be expected to in a workplace. One of the many benefits of this model is that it gave the students exposure to potential employers and vice versa. The students met people in the industry and employers observed the students working. Another successful aspect of the GIS Ecosystem Management certificate was the addition of an end-of-term showcase event. At the showcase event, students presented their final projects to an audience of industry employees, including those working in the government, education, energy, and sustainable living sectors. The event was held off campus, which allowed for more space so that employers could see students' projects and networking could occur. Several students obtained jobs as a direct result of the showcase event. The program instructor of the UHMC certificate said, "It is a great confidence builder and a great way to force students out of the classroom and into the workplace in a way that says, 'this is a real skill, you can actually use it, and there are people that want to hire you for this skill.' In my opinion, this was quite a unique aspect of this certificate."

In summary, UHMC launched its hybrid GIS in Ecosystem Management certificate with Hawai'i and Kaua'i being actively engaged in the curriculum development, along with community members and industry partners. The training's hybrid nature allowed students to do fieldwork in their communities while completing the coursework at their own convenience online.

Water/Wastewater: As part of the Sustainable Living Institute of Maui, a non-credit training was developed in Water/Wastewater Treatment Entry-Level Plant Operator training. The goal of this training

was to prepare the next generation of water treatment specialists because many workers in the industry are of retirement age. Because this is a non-credit training, student educational and employment attainment did not count toward DOL outcome numbers.

Sustainability: Leveraging resources from the grant allowed institutional and program faculty at UHMC to develop credit courses leading to certificates and non-credit courses in sustainability. Within the sustainability umbrella of credit programs there are three main sets of courses. The first is the Sustainable Science Management (SSM) program, which is a course of study that leads to a bachelor's degree. UHMC also developed the Sustainable Construction Technology (SUSC) training in which students can earn an AAS. This program provides curriculum and training in general building construction with options for comprehensive specialty areas such as carpentry, drafting, welding, masonry, architectural engineering, and CAD technology. Students are also introduced to requirements for Green Building Certification, including waste stream management and sustainable resources. The SUSC program is trade-oriented: students who complete the training tend to enter Electrician Apprentice programs or become carpenters or facilities maintenance workers at resorts, a major industry on Maui.

During the inception of the grant in 2012, there was a downturn in the traditional construction market. People were enrolling in UHMC from the workforce because they were unable to find jobs, which was a good opportunity for the college to train those workers in new, more applicable skills to meet evolving industry needs. For instance, the Carpenters Union sent students to the training program so that members could learn other forms of construction in addition to traditional carpentry by enrolling in UHMC's courses on renewable energy and green technology skills.

Through leveraged resources from the grant, UHMC also developed a Sustainable Technology certificate. Within the SSM and SUSC training, this certificate is "stackable," meaning it builds competencies in a sequence with other credentials that relate to one another. This program serves as an introduction to new sustainable technologies that use natural resources for power and energy, such as wind, water, solar, and green-building techniques. The curriculum provides students with the skills to work in renewable energy, construction, and other fields that apply the principles of sustainability. Because of the TAACCCT funding, UHMC was able to create this training, with many of the courses delivered in a hybrid training model of some coursework offered online, with in-person lab and project work.

Educational Support and Supplies: UHMC grant team members retrofitted a space on campus to start a Veterans Resource Center (VRC) for student veterans and their families by using funding from TAACCCT and private donations and grants from industry partners, including Home Depot. The intention of providing student support services to veterans is to enable retention and completion of coursework. The grant also paid for student veterans to work in the VRC. UHMC grant team members worked with DOL and the Department of Labor and Industrial Relations (DLIR) for veteran employment services and with campus and the Department of Veterans Affairs for disability services.

Because mapping and GIS software is graphics intensive and uses more central processing unit (CPU) and memory (RAM hard drive) space, many students lacked sufficient hardware for GIS data processing. To remedy this, UHMC purchased some laptops and GIS handheld computers for the GIS certificate program. Furniture for the learning center, which supports PLA work was also purchased with grant

funds, as well as furniture, computers and software for the faculty training center for instructional design purposes.

Hawai'i Community College

Business: Hawai'i Community College consulted with industry partners to determine the skill gaps of the local workforce as part of the process of developing certificate programs. Through these conversations, grant team members developed five new certificates in Business and Accounting. Because many people on the island of Hawai'i reside in remote areas and might lack transportation, the grant team's goal was to develop courses that were accelerated and available entirely online so that students could quickly finish their training and enter the workforce. The five new certificates are described below:

Business Essentials Certificate: This certificate lays the groundwork for business skills needed for today's workplace, which includes writing, business mathematics, speech, communication, an introduction to computer systems, hands-on experience with computer technology, and personal and business decision-making skills. This certificate requires four courses, two of which are accelerated.

Business Foundations Certificate: This certificate builds and maintains the critical skills necessary to develop dynamic, successful employees in the rapidly growing service economy. Students gain insight into customer behavior and attitudes that lead to positive customer relationships in business, and they build critical skills in the service industry. This certificate consists of two eight-week accelerated courses.

Certificate of Entrepreneurship: This certificate prepares students to create a comprehensive business plan for a business start-up or to expand projects within a current business or organization. Students develop skills for innovation and tools to expand business capacity. The curriculum also includes marketing processes, strategies and opportunities, accounting, bookkeeping procedures, and supervisory processes and functions. The certificate program consists of six three-credit courses, four of which are accelerated.

Retail Foundations: This certificate emphasizes multiple facets of the retail industry including retail operations, merchandise management, principles, and practices. Students also learn supervisory and human resources functions. The certificate consists of three accelerated eight-week courses.

Virtual Office Assistant: This certificate was designed as part of a system-wide initiative to provide students with the skills to be self-employed by offering administrative support services to clients or employers in a virtual setting. The coursework covers computer and technology tools, basic accounting methods, social media tools, business and marketing plan creation, and how to set up a home office. As mentioned above, these skills are especially beneficial in rural communities because students can work from anywhere after they graduate. The certificate is composed of seven three-credit courses, four of which are accelerated.

GIS Ecosystem Management: Hawai'i Community College aided in the development of the GIS curriculum that was implemented online by UHMC. All of the RH1 grantees utilized the online GIS curriculum and held on-campus lab classes in which students could complete GIS fieldwork and analysis to earn a GIS in Ecosystem Management Certificate.

Sustainability and Process Technology: Hawai'i Community College offered credit certificates and non-credit courses in sustainability offered jointly through the GIS and Architectural, Engineering, and CAD technologies (AEC) departments.

Geospatial Technologies Certificate: This certificate builds from the GIS in Ecosystem Management certificate program and is cooperatively offered as a hybrid through UHMC, as discussed above. The certificate incorporates GIS, computer aided drafting (Auto CAD), land surveying, and building information modeling.

Sustainable Lot Design and Site Prep Certificate: The Hawai'i Community College AEC Department offers a sustainable lot design certificate, with courses in CAD, land surveying, sustainable environmental design and sustainable design, and site preparation. This certificate is geared toward architectural construction and sustainability.

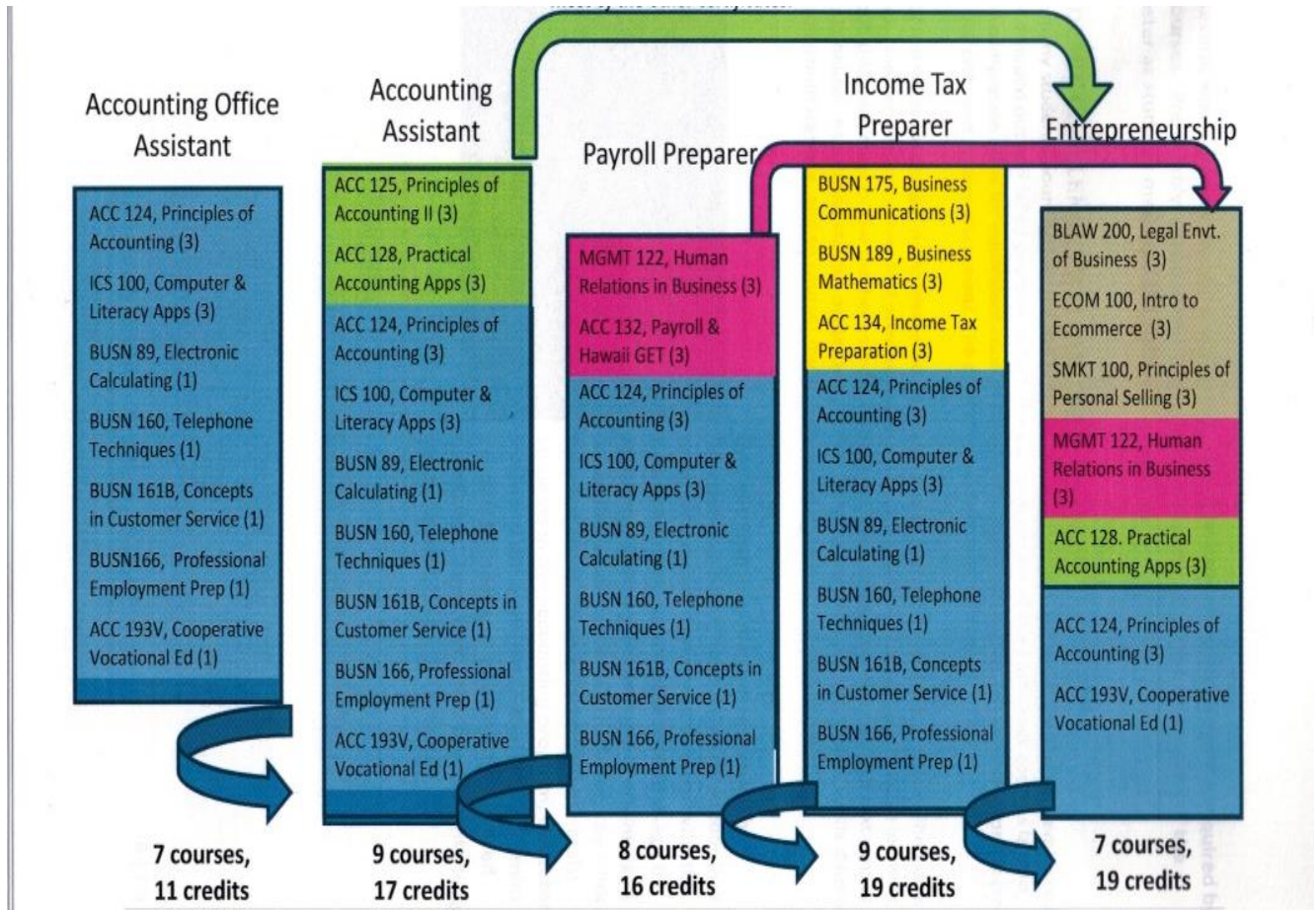
Hawai'i Community College also developed the curriculum for a non-credit training in Bio-Fuel Process Technology as part of the AEC department.

Educational Support and Supplies: Hawai'i Community College purchased a simulator for the Process Technology program and a server for tracking industry partner engagement (customer relationship management or CRM), which will be discussed later in this report.

Kaua'i Community College

Business: Kaua'i Community College offered two business certificates, Accounting Office Assistant and Accounting Assistant, prior to TAACCCT funding. Through the RH1 project, Kaua'i Community College was able to expand the business offerings to five stackable certificates. The three new certificate are the Payroll Preparer certificate, Tax Preparer certificate, and Entrepreneurial certificate. All five certificates were conceived of as a ladder, shown in Figure 1. The Accounting Office Assistant served as the base certificate, with seven courses totaling 11 credits. A student could then take two additional three-credit courses to earn the Accounting Assistant certificate, for a total of 17 credits. The Payroll Preparer certificate requires six of the base certificate courses (Accounting Office Assistant), with the addition of two three-credit courses. To earn the Income Tax Preparer certificate, a student must complete the six base classes with three additional three-credit courses, for a total of 19 credits. The Entrepreneurship certificate requirements consist of two of the base courses and one of the other three credit courses from both the Accounting Assistant and Payroll Preparer certificates, along with three independent three-credit courses, totaling 19 credits.

Figure 1. Kaua'i Business Certificate Laddering



Kaua'i Community College developed all of this new course programming in addition to offering the courses in a compressed format and online for students' convenience and expediency. Instead of a 16-week term, students could finish the coursework in eight weeks or less, allowing them to enter the workforce more quickly.

GIS Ecosystem Management: For the RH1 grant, the community college administrators utilized UHMC's online curriculum for the GIS in Ecosystem Management Certificate, similar to Hawai'i Community College, and offered the eight-week compressed hybrid model. The labs and fieldwork were performed on campus and in cooperation with industry partners, similar to the other two colleges' certificate design.

Plug-In Hybrid Electric Vehicle (PHEV): Kaua'i Community College's automotive technology program offers certifications in the following specialty areas: Drive Train, Undercar, Engine, and Electronics/Computer Control. The grant funds were utilized to develop a curriculum for a new specialty area, hybrid electric vehicles. The automotive technology program now offers three certificates of completion that lead to the certificate of achievement in Automotive Green Technology.

This courses prepare students for entry-level positions in the automotive industry by introducing the basic knowledge and understanding needed for maintenance and repair of HEV vehicles, along with safety

procedures while working on high-voltage electrical systems. The Automotive Technology training courses are clustered into certificates, each providing a set of marketable workplace skills. Offered are certificates of completion in HEV Preventive Maintenance and Repair, HEV Diagnostics and Repair, and HEV/EV Air Conditioning and Service, which lead to a certificate of achievement in Automotive Green Technology. The curriculum developers designed the courses to be implemented as “fast-track,” meaning students can complete them in eight weeks versus the traditional 16 weeks. The courses are all conducted in person because of the hands-on nature of the training.

In terms of green technology, the islands often lag behind the mainland. The cost of fuel on the island has motivated people to buy more alternative-fuel vehicles, but there has been a lack of repair shops with employees who can repair hybrid electric vehicles, so this training presented a great opportunity to train local mechanics from traditional repair shops, along with students who are new to the industry. Both groups can receive training in traditional fuel and alternative-fuel vehicle repair at Kaua’i Community College.

The program coordinator formed partnerships with local repair shops and car dealers. When customers brought their hybrid electric vehicles to repair shops after warranties had expired, often the employees did not have the expertise or time to repair the vehicles, or the customers thought the cost to repair them was too high. Consequently, those businesses donated vehicles to the program for students to work on during lab time. Interviews, students conveyed their excitement about another hands-on activity, which was an unexpected favorable circumstance through a relationship of the program coordinator: the opportunity to convert a traditional Alfa Romeo into an electric car. The students will showcase this conversion at the end of the grant period. Obtaining the knowledge and skills to convert a traditional vehicle to an alternative-fuel vehicle is an exceptional skill, though not a direct component of the RH1 grant, a leveraged training opportunity made available because of the grant, for these students to bring to the job market.

Significant equipment purchases and lab space enhancements were necessary to launch these certificates. The college used TAACCCT funding to retrofit a machine shop that was not being used and to purchase hoists, one electric vehicle (others were donated), HEV repair equipment, and mockups of electric engines for the repair shops that were needed to teach the students up-to-date technology components of the curriculum.

Sustainability/Wastewater: The Sustainability Science training did not exist as a credit-based certificate prior to the RH1 grant; grant team members wanted to develop a new certificate program in sustainability as part of the grant. Faculty and grant team members performed outreach with business and sustainability sector stakeholders on Kaua’i to determine what the community needed and how that meshed with the grant’s objectives. The stakeholders expressed a need for workers with training in water/wastewater, renewable energy, sustainable construction, and agriculture.

There are two levels of certification available for students in the new course offerings, a 25–27 credit certificate of achievement and a 12-credit certificate of competence in Sustainability Sciences. The certificate of competence includes an introductory sustainability course and an energy class. The students then need to complete courses in two of the specialty areas: water and waste management; sustainable building design, construction and operations; sustainable agriculture systems; and sustainable farm

management and horticulture. A student can then earn the certificate of achievement that incorporates other general education courses such as biology, chemistry, math, and written communication. Both of these certificates are aligned with UHMC's bachelor of applied science in Sustainable Science Management.

Educational Support and Supplies: As mentioned above, Kaua'i Community College rehabilitated an old machine shop that had not been used for ten years. It needed significant retrofitting and technology enhancement to become an HEV training facility, which included, but was not limited to hoists, HEV simulators, mockups, electric engines, an electric vehicle, and many tools. The new training facility has become a demonstration space for the school and for the local automotive repair industry to visit and observe the work of the program. There were supplies and leveraging of resources to create the Veterans Resource Center (discussed below) by retrofitting an unused office area, and the creation of a sustainability lab to with up-to-date technology to support sustainability training with up-to-date supplies.

What delivery methods were offered?

The delivery methods varied by training and certificate offering, as illustrated in the above certificate area descriptions. One of the main intentions of the RH1 program was to offer as many certificates as feasible online or in hybrid format to increase accessibility for rural residents of the islands. The RH1 grant team members made a concerted effort to compress course length from 16 weeks to eight weeks whenever possible. The motive for this was to allow students to finish certificates more quickly, facilitating a rapid transition into employment.

TAACCCT Grant Components

It is important to note that not all of the components discussed below happened at all of the colleges. Some of the activities happened on one, two, or all campuses, depending on the needs of the college. As part of the consortium effort, activities were implemented in a way that was most beneficial to the institution, its students and community.

Student Support

What assessment tools and process were used? Who conducted the assessment? How were the assessment results used? Were assessment results useful in determining the appropriate program and course of sequence for participants?

Assessment tools were not used with the students in recruitment or for determining program appropriateness for participation in RH1 training. Many of the students in the RH1 program were students already attending one of the colleges; other students were recruited from the community. All students participating in RH1 grant-funded certificates and non-credit training were offered the student support services described below, and were not required to undergo any assessment process.

What support services and other services were offered?

Many support services were offered to students at all of the colleges. The titles and positions of grant team members who provided this support varied slightly across the campuses, but descriptions of the functions of services offered to participants in RH1 grant-funded training will be elucidated below.

Outreach and Recruitment: There were two stages of the outreach and recruitment process. At the beginning of the grant cycle, grant team members performed outreach in the local communities with a couple of objectives. The first objective was to identify training and employment gaps present in the local communities. Grant team members from each college talked with workforce contacts and community members. This outreach relied on many methods, including but not limited to phone calls, emails, individual meetings, community meetings, and focus groups. In many instances, this outreach work led to relationships with industry partners and community members that lasted for the duration of the grant. This outreach activity is considered a student support activity because it led to direct student support in the form of fieldwork, internships, and employment support.

The second stage of outreach and recruitment occurred after curriculum and training were developed and was intended to raise awareness among community members and industry partners about available RH1 training opportunities at the community colleges. Grant team members held recruitment events in some of the rural communities and used marketing tools such as social media blasts, printed signage, flyers and mailers, internet advertisements, and radio ads. At some of the outreach and recruitment events, grant team members brought laptops to help people complete the enrollment process onsite. Some students were already enrolled in RH1 grant-funded training because of their own interest or encouragement from a grant team member.

Student Support: The grant team members who provided student support for the RH1 consortium had many different titles and had slightly differing scopes of work, but they were all present to advocate for the students' success in all phases of their training and job placement. Grant team members were involved in recruiting and raising awareness of grant training opportunities available to the community. This often involved helping community members become enrolled as college students, which can be a confusing process with many steps. One grant team member said that because the student enrollment process was online, it was a potential barrier. At the outreach events, people were enthusiastic about enrolling for classes because someone was available to assist them with the online application. In assisting applicants with the online process, grant team members could explain how the online courses worked. One of the Kaua'i student grant team members said that there were many women with young children who did not know that they could take classes while at home caring for their children, and they were excited about taking courses.

“Going back to school changed my life, and it would not have been possible in the traditional classroom environment. I was a mother of a five-year old, working full time, with a baby on the way. Online classes were the only way I could have made this happen. This is the game changer a lot of people need.”

The grant team members helped students extensively with the online courses. Grant team members first asked students about their skillsets to assess readiness for online courses. Depending on the student's comfort level, the grant team member suggested taking a computer skills course or seeking help from a tutor, or a grant team member would review skills with the student. When students signed up for online coursework without contacting a grant team member who offered student support, they would contact the students to see if they needed any assistance with technology. The grant team members did this regularly for students enrolled in online courses because technology needs could change throughout the term.

The grant team members applied the intrusive advising method for online, hybrid, and traditionally offered courses. Intrusive advising is a proactive approach in which grant paid faculty or grant paid educational specialists or other grant team members check-in with the students regularly, rather than waiting for a student to contact them. For the compressed courses, grant team members would typically check-in with students for the first time in week two. They ensured that students had all essential class materials and inquired about the need for extra help in the form of tutoring, counseling services, or other resources. The grant team members also communicated to the grant paid faculty or educational specialists if a student was struggling or needed some additional help with challenges directly related to a class. These check-ins with students continued throughout the academic term, and included ensuring that students registered for classes for the following term.

Career Preparation/Guidance and Navigation and Internship and Workforce Coordination: Grant team members offered work readiness support through formal workshops, classroom presentations, and individual meetings. Some of the skills covered in the work readiness sessions were job search and placement, résumé building, interviewing (including mock interviews), time management, and workplace etiquette. This work readiness support was offered by grant team members, including grant paid faculty and grant paid educational specialist. A grant team member gave an example of the support offered:

We went out in the community and recruited managers and employers in the business sector to give the students a taste of what a real interview was all about and get feedback on how they performed. We had students bring in their resumes and cover letters, and we had them dress up as if they were going to a real interview. A lot of the employers were quite impressed and wanted to know more about the students when they were done. They were encouraging the students to apply online, they were taking applications and wanting to hire students. I think it was really good, not just to get our community involved, but also to get our students involved in this. It really gave them confidence, especially the students who had never worked before.

Direct connections to industry partners were often made through the relationships of grant paid faculty, grant paid educational specialists, other grant team members, or the Career Link program. These connections were made through industry partners speaking in classrooms, industry partners hosting field trips and fieldwork, project showcases at the schools that industry partners and community members were invited to, job fairs, internship placement, and interview opportunities arranged by grant team members, including grant paid faculty and educational specialists.

The Career Link program at UHMC also provided career support services. Career Link is a job readiness program that assists students with career guidance, job searches, completing job applications, cooperative education, internship placements, résumé development, and interview preparation for all students, including RH1 participants. Kaua'i Community College had a career center where many of the same services above were offered to all students. Cooperative work and internships are often placed through individual training and certificate programs.

UHMC created a job website that aggregates job placement services in Maui and in particular, a link to the Hawai'i Department of Labor and Industrial Relations' One-Stop Site and Hire Net Hawai'i. The site was added as an icon link on home pages for grant-funded courses on the learning management system (LMS). This additional link can easily be scaled to other programs on campus using the LMS home page

template. Using the LMS will generate traffic to job resources and introduce students to these resources early in their programs.

Transcript Evaluation: Transcript evaluators were hired at each community college to centralize and streamline the evaluation of transcripts from students transferring from other institutions who want credit at the community college for classes they took elsewhere. University of Hawai'i campus administrators made policy changes in order to allow evaluation of transcripts for people who were not yet students at the school to align with existing policies at the other colleges. Prior to the grant, a student had to be registered for classes before a transcript evaluation could occur, which created problems for students who had already taken lower-level courses that applied toward their programs. Now admitted students can have their transcripts evaluated before registering for classes. Transcript evaluation is also a factor for students who need to fulfill a prerequisite to enroll in another course. If they do not receive credit for having taken that course elsewhere, they have to take the course again, which costs more money and time.

Another issue with the original transcript evaluation policy was that the evaluation considered only the student's current major and applicable credits for the requirements of that major. If the credits did not pertain to the student's major, they would not be awarded. A student who changed majors had to apply for an additional transcript evaluation for the new major. Hawai'i Community College campus administration changed this policy to evaluate student transcripts regardless of major, which resulted in students seeking and earning more credits through transcript evaluation, again, aligning with current policies of the University of Hawai'i College system.

Prior Learning Assessment (PLA): Significant work in aligning PLA implementation to the University of Hawai'i College system policies took place with the support of the RH1 grant resources. Three grant team members described the implementation work done at the colleges: One of the first steps in increasing the efficacy of PLA utilization and credit attainment was making the process more transparent and accessible. There were already policies in place and information available to students in the campus catalog, but according to interviewees, it was vague and did not provide clear direction to students. Before the RH1 project, the process of awarding credits to students could take from a month to longer than a semester. The schools advanced a four-fold plan: 1) Create infrastructure for the process, 2) Ensure that the process was transparent and students and faculty were well-informed, 3) Ensure that there was a central location and/or contact person for PLA, and 4) Create PLA pathways that did not exist before the RH1 grant.

The existing process for students to earn credit was not as effective as it could have been. For example, a student who was an electrician with an electrical license who wanted to earn credits for the license had to request a PLA with the records office. If the license articulation was not built into Banner (the school's LMS), the student could not obtain credit for it, simply because that articulation pathway was not ready for a particular kind of prior learning experience. Campus administration on the campuses changed the process so that faculty were instructed that if there was not a current pathway available, they should send the student to a counselor, who would then communicate with faculty to work on an evaluation method for the student.

In the University of Hawai'i College system, there are three methods by which a student can earn credits through a PLA: Non-Collegiate Sponsored Education (including industry credentials), National

Standardized Equivalency Exams, and Credit by Institutional Exams. Portfolios were piloted as part of the grant work, but are not currently offered at Hawai'i Community College; they were being offered at other colleges in the Hawai'i system at the time of the evaluation.

The Non-Collegiate Sponsored Education method included military training appearing on a student's transcript as credits through articulation and credentialing bodies such as the American Council on Education, AARTS (Army transcripts), SMART (Navy transcripts), and Joint Services Transcript (JST). These organizations calculate educational credits for training and certifications earned during military service. Industry-recognized credentials are also categorized as Non-Collegiate Sponsored Education and are not conferred by an educational institution, but instead an outside licensing body that usually requires an exam or competency test to award a credential that is required for employment in certain sectors. Industry-recognized credentials are conferred by organizations such as the American Welding Society (AWS), Automotive Service Excellence (ASE), and the National Council of State Boards of Nursing (NCSBN). Before the transcript evaluation work done through the RH1 project, there was not a clear way for students to obtain credit for industry credentials earned through prior experience and training; however, military training was easily transferred to transcripts. For industry credentials, a menu of pathways was not established that was transparent for students or faculty members. The RH1 grant team members inventoried all the prior learning credit pathways available at the community colleges, created a menu of options, and then made the menu accessible to the public. The system's policy is that a pathway is not established until a student has come forward with a particular credential that needs a pathway. So, certain pathways will only be established if a student needs one for a particular credential. There is an effort underway to make that process more proactive, but at this time it remains reactive.

In the University of Hawai'i College system, the issue of students not being able to obtain a transcript evaluation until they had registered for courses also existed before the RH1 grant, which affected the student's PLA options, as discussed above. Now admitted students can receive a transcript evaluation and a PLA. Previously, the process before receiving a transcript evaluation and PLA was intensive (application to college, acceptance, registration for classes, attending classes), which was a barrier to student enrollment. Now, when any industry credential is evaluated, it is recorded in the student's record and is evaluated, regardless of the major the student declared. The student could change majors multiple times without hindering credit accumulation because the college provides a menu of courses from which they can earn credits using industry credentials. The ability to change majors and still earn credits is important because often people return to school to change career areas and might not want to work in the same field as before. The new, less restrictive policy allows students with industry credentials to earn credit for those credentials and to apply those credits to a new major, as needed. If there is not a pathway established, faculty members are available to review the credential and add it to the menu for future students to apply to their courses of study.

For some time, it has been standard to obtain credit for National Standardized Equivalency Exams such as College Level Examinations Programs (CLEP), Advanced Placement (AP), and UExcel exams, in addition to credit by dual enrollment and credit by articulation agreement. During the RH1 project, grant team members made an effort to expand accessibility in these areas. For example, CLEP had an existing pathway in Banner, but there were only a few CLEP types available. Through grant team members' efforts, Hawai'i Community College increased the availability to approximately 30 CLEP types. One of the existing issues was that there was not a CLEP testing site at each of the colleges. If a student wanted

to take a CLEP exam, they would have to travel to Oahu. At the time of the evaluation, Hawai'i Community College Office of Student Affairs was working toward becoming a test site for CLEP.

Credit by Institutional Exams is a mechanism for students to obtain credits for a course for which they have previous knowledge or expertise. Students did not often seek credits in this manner because they were not aware of it as an option. When the RH1 grant helped make the practice more transparent and streamlined, with one point of contact for the PLA, students utilized it more. Previously, students who knew about these exams would have to contact their counselor, faculty members, and department chair and undergo many steps that were not intuitive. Now, the PLA point of contact communicates with the counselor, faculty members, and department chair to approve the credits so that the student can take the exam. When exams were not available for a particular course, faculty members were paid to create them, and approximately seven new exams were created during the course of the RH1 grant.

A pilot portfolio assessment program was offered at Hawai'i Community College, but it is not currently being offered at the time of the evaluation. The pilot was done to figure out how portfolios work, how they can be managed from a logistical standpoint, and how much time and money are needed for portfolios to be a viable assessment option. RH1 grant team members created a process: faculty and grant paid faculty members and educational specialists created rubrics, developed a curriculum for student workshops that illustrated the process, and devised ways for faculty members to evaluate portfolios. This process served as a test for the entire University Hawai'i community college system. Hawai'i Community College campus administration determined that there was too much faculty time and too many upfront costs to continue the process, but it was implemented at several of the other colleges.

The cost of PLAs for students depends on the type of PLA method they are utilizing. For example, Non-Collegiate Sponsored Education Credits (military-based credits and industry credentials) do not cost the student any money. For proficiency exams like CLEP and AP, the student has to pay because external organizations proctor the exams and confer credits. Students are not charged by the college, but they pay for the exam and then transfer those credits to the college. Credit by Institutional Exam is the only PLA students pay the college for. Previously, the policy dictated that the student register for the course to take the exam. For example, if a student wanted to take an exam for Spanish, they would have to register for that class and pay full tuition; doing so simply saved the student time, but not money. RH1 grant team members lobbied for this to change, and now the student is only charged a fee, not tuition for the class.

The University of Hawai'i community colleges have a progressive policy on acceptance of credits toward program completion; there is no limit on the amount of PLA credits that students can accumulate. The only caveat is that there is a system residency requirement that students must earn 12 credits at the college within their program major (electives do not count) to be able to earn an associate's degree. A student could bring in 100 PLA credits but would have to earn 12 credits within their major at their current college in the Hawai'i system.

Tutoring: Course specific tutoring services were made available to students enrolled in an RH1-funded courses. Students could access tutors in person, on the phone, through email and via an online application. The tutors were available anytime; they were given cell phones to increase student access, and those phone numbers were made available to students.

Veterans Support: The RH1 consortium consulted with community colleges in California to emulate their successful model of offering student support services to military veterans. The model was implemented at UHMC first, and then applied at Kaua'i Community College. Within the first year of the grant, UHMC grant team members collaborated with private industry donors and public agencies to convert a space on campus into the Veterans Resource Center (VRC) for student veterans and their families, as described on page 11. At the VRC, the following services are available for 12 hours a day during the school week: tutoring services; individual, group, and online registration assistance; computer laboratories; email and internet access; computer-assisted instructional programs; and a kitchenette and socializing space for student veterans and their families. A photograph of the VRC space is shown in Figure 2.

Figure 2. Photograph of VRC Space



Source: <http://maui.Hawai'i.edu/veterans/>

With the assistance of the local Rotary Club, Kaua'i Community College converted an unused office space to create a VRC. Similar to UHMC, the center provides college registration assistance, tutoring, computer access, and career assistance. In year two of the grant, the Kaua'i VRC staff created a monthly 30-minute radio show on the local public radio called Vet Talk. The program focused on recruitment of military veterans to college programs, and in its initial show, listeners were provided an orientation to the services available at Kaua'i Community College. This was the first of such radio outreach programs in rural Hawai'i.

In lieu of a permanent space for a Veterans resource center on the Hawai'i Community College campus, hosted regular monthly talk-story sessions for active military and veteran students have been held on campus with participation from local representatives of the Department of Veterans Affairs. Hawai'i Community College also worked with the National Guard on customized training to assist in transitioning military members to civilian life that could include further post-secondary education.

Industry Connections

What contributions did each of the partners make?

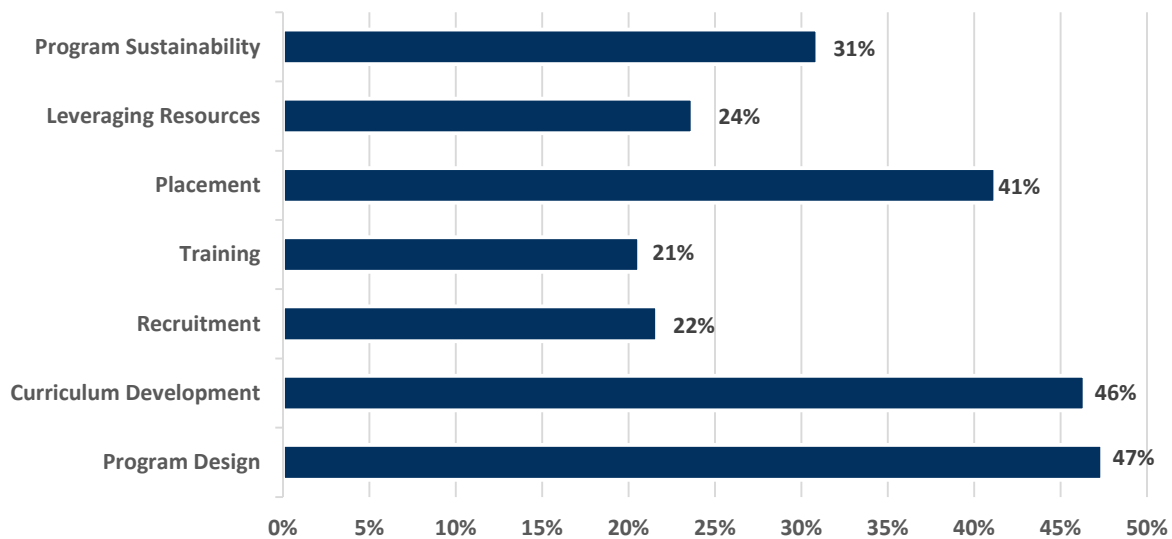
Each of the colleges in the RH1 consortium engaged industry partners early in the grant process and consulted with them in determining which courses or certificates would be offered through the RH1 grant at the colleges. The grant team's goal was to have the partners involved in the following areas:

- Program Design
- Curriculum Development
- Recruitment
- Training

- Placement
- Leveraging of Resources
- Commitment to program sustainability

Figure 3 depicts the ways in which industry partners were involved in the RH1 project. For example, 46% of the industry partners involved in the RH1 project were involved in curriculum development. As illustrated, partners in all of the targeted areas were heavily involved in the project. This was the direct result of grant team members’ hard work and relationship cultivation.

Figure 3. Industry Partner Contributions



Upon evaluation of industry partner involvement, through interviews with grant team members and surveys of the industry partners, PRE determined that partner involvement was a strength of the RH1 program as a whole. The collaboration and contribution of resources from the community and industry partners exceeded the goals set by the consortium in their statement of work.

Partner Involvement

Industry partner and community contribution of resources that directly benefitted RH1 training surpassed the project’s statement of work goals and projections. This is a direct result of a concerted effort of the grant team members, including program student those grant team members who provided student support, grant paid faculty, and grant paid educational specialists. Partner involvement varied by campus and by training area. Below is a representation of engagement at each college, but not a comprehensive account of partner activities.

UHMC: The virtual office assistant certificate grant paid educational specialists worked with the president of the Realtors Association on Maui to determine the association’s needs for virtual assistance. Realtors on the island had been hiring virtual assistants, so they were a valuable resource in providing feedback on the curriculum. The grant paid educational specialist gave a presentation at the realtors’ annual luncheon to inform them of the virtual assistants being trained who would be available as potential employees.

Industry partners and community members had more involvement in the GIS Ecosystem Management certificate than any other training. The grant paid GIS educational specialist invited local GIS workers to the classroom to deliver guest lectures on how they use GIS in their work. The educational specialist also partnered with many businesses that use GIS to serve as fieldwork sites for labs. The local mall hosted a GIS day, which the students participated in, along with some local industry representatives and larger companies, such as ESRI and National Geographic. The GIS educational specialist created and distributed an e-newsletter series, which was sent to roughly 300 people, mostly affiliated with the industry. The e-newsletter provided updates about the training program, student project features, and industry spotlights that gave industry partners the opportunity to describe their work with students. The GIS Ecosystem

“The showcase was great. It gave us an opportunity to show what we had learned and to get our name and faces to the people who are in the industry.”

Management certificate required a research project in which students had to formulate a research question and answer it by applying the skills they gained through their training. The students usually contacted a partner organization to obtain data for their research projects, and some organizations became

very involved, either directly assisting students with data collection or holding multiple meetings with students about their projects. The projects resulted in a large poster presentation at the end-of-term showcase event hosted by the GIS Ecosystem Management certificate training program. Hundreds of industry partners and community members were invited to the showcase events, which functioned as a venue to share students’ projects and as a networking event for students to meet with potential employers. The posters students created illustrated the skills and knowledge they had gained and applied, which was an effective marketing tool they could use while networking with industry representatives. The GIS educational specialist invited rotating companies to share their latest projects at showcase events later in the grant period. This gave the students an opportunity to learn about the work of local firms, which could help them decide where to seek employment—a win-win for both the students and local workforce sector.

Hawai’i Community College: To identify new course content for RH1-funded programming, the RH1 grant paid educational specialist in the business program surveyed dozens of employers on the west side of the island (the economy there is hospitality-based) to learn what they were seeking in employees. The five skill areas employers had the greatest need for were customer service, communication, logical reasoning and problem solving, office administrative support, and sales. Because of this valuable information from employers, grant team members were able to incorporate those five skills into the new certificates. Regardless of where the students live or eventually obtain employment, these skillsets will be beneficial.

The GIS/geospatial and engineering (AEC) certificate educational specialist performed significant outreach (surveys and phone calls) with employers on Hawai’i to determine which skills and software program knowledge they wanted employees to possess. The educational specialist attended a land surveyors’ conference on Hawai’i to distribute information about the program and network with people in the field while raising employers’ interest in offering fieldwork opportunities and employment placement.

Hawai’i Community College also had a non-credit Process Technology training program with a cost of \$12,000 to students in tuition for five years. Because of a relationship with an industry partner, students

can apply for an employer-sponsored scholarship to cover the \$60,000 for five years of tuition for the non-credit training program.

Kaua'i Community College: One of the grant paid business faculty was a member of an accounting professionals' organization that provided feedback on the curriculum. That grant paid faculty member's relationship with the business community resulted in useful feedback about students who had been placed in cooperative working experiences or hired as employees. An interviewee said this feedback was a great resource in learning how to better facilitate the students' success in the workplace.

Because Kaua'i's automotive program is nationally certified, faculty hold an advisory committee meeting twice a year. At the beginning of the RH1 grant program, the grant paid automotive program faculty member discussed the intention and opportunity to create a PHEV training program. The grant paid faculty member shared the curriculum that had been developed with the advisory committee, and the members provided feedback on which skill gaps existed locally and what kind of training the automotive repair shops and dealerships needed for their employees. The advisory committee approved the curriculum and offered support for the new certificates.

The grant paid faculty member had many contacts in the automotive industry on Kaua'i, partly through the advisory committee and additional outreach. As a result of these contacts, public and private sector representatives donated to the certificate training program. Near the beginning of the training implementation, a private donor offered an Alfa Romeo gas vehicle. The grant paid faculty member thought this would be a great opportunity for additional special training not otherwise offered, to convert the car to an electric vehicle. When the grant paid faculty member told the donor of the intention, the donor offered an additional \$30,000 to support the modification and the training program. Other cash donations came in that totaled tens of thousands of dollars. Some benefactors donated vehicles that were simply too expensive for them to have repaired at the dealerships on their own: the training program received two inoperative Toyota Priuses, one Toyota Highlander, and a Honda Insight. All of these vehicles were repaired by PHEV students during class, and they are now fully operational. Service managers from the major dealerships were on the program's advisory committee, and they told the grant paid faculty member that the students were doing more work than technicians: The students were diagnosing technical problems and completing the necessary repairs, whereas the technicians were simply replacing components.

The grant paid faculty member stated that these contributions enhanced the program, but even without the donations of cars, the PHEV program would still be successful in the sense that it is providing students with training and jobs. The certificate training program leveraged TAACCCT funding to acquire other project cars and equipment, as illustrated above in the program description. The most valuable industry partners for the PHEV certificate training program were the automobile managers at the dealerships because they assisted with reviewing the curriculum, obtaining donated cars, and employing students.

The sustainability certificate grant team members and grant paid faculty held focus groups and individual meetings with industry partners in which they reviewed the newly developed curriculum specific to their field. An example of feedback was a suggestion from a wastewater industry representative to use a different textbook because the one that had been chosen was too technical for people entering entry-level jobs in the field. Another suggestion from an industry partner was to incorporate one of the certificates

into a particular trade program at the college. In an interview for this evaluation, a grant paid faculty member in the sustainability program said it was helpful to hear suggestions because grant paid faculty members believed that industry partners' support gave a particular programmatic feature more weight, which also made that feature easier to implement.

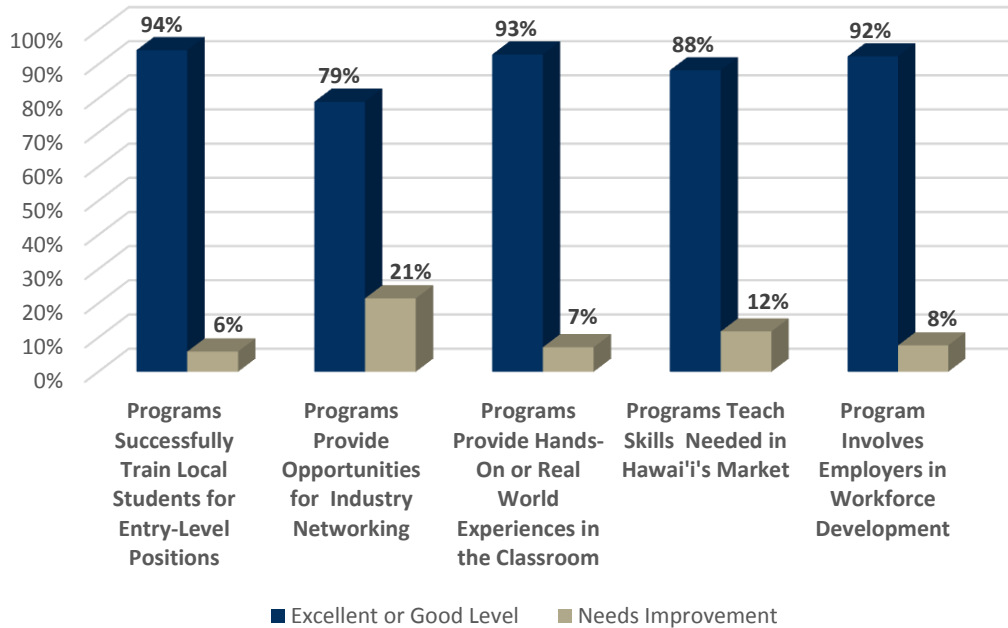
Grant team members at Kaua'i Community College performed outreach with employers to accomplish two goals: 1) To promote the RH1 sponsored certificates available at the college, informing employers about the kinds of training available and how their current employees could benefit from returning to school, while improving performance at their companies. 2) To promote the students who earn certificates, so they would have more success in obtaining a job or an internship after they completed training. By talking to employers and explaining that although the students might not have the work experience, they have the educational work ethic, many employers were willing to hire these students as paid or unpaid interns. Some of the students performed so well that the internships became paid jobs with benefits at the businesses where grant team members had conducted outreach efforts.

Industry partner outreach efforts made it clear to the RH1 consortium that substantial overlap in engagement efforts had occurred across multiple programs of study and departments of the colleges. The lack of a comprehensive system to track industry/employer outreach, communication, and involvement also became apparent to the RH1 grant team members. This discovery was critical to preventing burnout among community members being contacted repeatedly by multiple people who were unaware that a particular community member had already been contacted with a request. A potential solution is a customer relationship management (CRM) system, which UHMC and Hawai'i were developing separately at the beginning of the grant; by the end of the grant they were working cooperatively on CRM development. An important step in the process of creating this kind of data management system is discerning which information is important to store. The process can take a long time, and it is necessary to talk to multiple stakeholders, sometimes in the same department, to determine the function that such a database can serve, how to make it as user-friendly as possible, and how it will be maintained. Hawai'i Community College purchased the server for the database, and at the time of the evaluation, the RH1 consortium was deciding on final details of the initial cooperative buildout, which will likely change as the colleges' needs evolve. CRM development is a positive and sustainable project that will support the colleges and industry partner relationships long after the RH1 project concludes.

Industry Partner Feedback

PRE surveyed industry partners about their involvement with and perceptions of the grant certificates. Figure 4 illustrates Maui industry partners' perceptions of students' preparation in the GIS ecosystem management, sustainability, and food innovation certificate programs.

Figure 4. Maui Industry Partner Feedback (N = 22)



Overall, the feedback was very positive, in that the partners believed that they were involved in workforce development, the programs provided skills needed in Hawai'i's job market, the courses included hands-on experience in the classroom, and the training programs successfully trained local students for entry-level positions in a given industry. The industry partners indicated that they would like more opportunities to network with students, which is a positive area for improvement because the industry partners want to be involved with the schools, training programs, and students.

PRE surveyed industry partners on Hawai'i and Kaua'i who had directly worked with students in RH1 grant-funded certificate programs. As Table 3 shows, the employer partners surveyed expressed confidence in the participants' technical and soft skills.

Table 3. Student Performance Feedback from Industry Partners on Hawai'i and Kaua'i (N = 5)

Reflecting on Working with Rural Hawai'i Program Students...	Mean Response
I am confident in their skills to complete on-the-job tasks they are given.	1.4 = Strongly Agree or Agree
They seem to care about the quality of their work.	1.2 = Strongly Agree
They communicate well on the job.	1.6 = Strongly Agree or Agree
They work well with their team.	1.25 = Strongly Agree
They show up to work on time.	1.25 = Strongly Agree
They manage time effectively.	1.6 = Strongly Agree/Agree
Scale: 1= Strongly Agree; 2= Agree; 3=Neutral; 4= Disagree; 5= Strongly Disagree	

PRE gathered qualitative data about industry partners' perceptions through survey questions. One question was "How is the program having a positive impact on your industry locally?" The industry partners' responses were positive. For example, an industry partner on Kaua'i said, "The caliber of job applicant seems to be improving. We have hired two students in the last 18 months and they are exceptional employees." Another partner on Kaua'i said, "It provides a quality base for recruitment for the automotive industry. It also provides an affordable alternative for the community to further their education."

An employer partner from Kaua'i provided some general feedback: "The staff is very dedicated to the success of the students, and is mindful of the positive impact they can have in the community." After interviewing two dozen grant team members, PRE researchers can affirm that grant team members, including grant paid faculty and educational specialists, are quite devoted to the students' advancement. The interviewees expressed care and commitment to the success of the students and their larger community and saw the RH1 program as an investment for themselves as community members. A Maui industry partner for the GIS certificate hired many of the interns placed in that company because the partner was so impressed by the students' work: "We hired four graduates of the program as interns, and three went on to become employees of the company with salary and full benefits."

Along with the accolades, industry partners offered suggestions for improvement. An industry partner from the business certificate training on Kaua'i said that "students need longer work experiences." In that sense, the shorter time period for cooperative work experiences or internships is one of the downsides to offering a compressed curriculum. Kaua'i Community College is not continuing the compressed online coursework after the grant, so that would give them the opportunity to modify the curriculum in a way that could include additional hours of training, cooperative work experience or internships.

Industry partners who were involved with the GIS ecosystem management certificate at UHMC were asked, "What are some ways that you think GIS/GeoTech can be improved in Hawai'i and the Pacific?" One partner suggested "more instruction linked to professional workflows, real people learning how to solve real problems." Another responder said, "More people need to understand the value of GIS; there needs to be an increased level of awareness of what GIS can do." One of the industry partners wanted more communication with the larger GIS community and other partners that worked directly with students: "Broader reach to other communities and islands. I've mentored a few students; a follow-up written thank-you note would mean the world to partners. Not just an email or text, something written." This kind of feedback for the region's GIS sector is quite helpful for future course revisions in educational institutions and businesses.

What factors contributed to partners' involvement or lack of involvement in the program?

PRE's interviews with RH1 grant team members and surveys of partners concluded that partner involvement depends on their relationships with faculty and grant team members, level of investment in the college, and dedication to the community. Two RH1 grant team members echoed one another in saying that, "partners got involved mostly through personal relationships with the [grant paid faculty and educational specialists]. They learned about the certificates through [grant paid faculty and educational specialists] speaking passionately about their training programs". This affirms the importance of continued outreach to the community and industry partners by faculty and grant paid faculty and educational specialists in multiple roles at the colleges.

Which contributions from partners were most critical to the success of the grant program?

Grant team members appreciated all of the contributions from partners during the RH1 grant. Interviewees said some of the most helpful contributions were when partners provided concrete feedback on curriculum and course content, for example, when the wastewater partner suggested a different textbook. Interviewees identified the industry partners who provided fieldwork opportunities for the GIS training as being especially helpful because students gained hands-on experience, similar to the activities they would be expected to perform on the job. The PHEV grant paid faculty expressed gratitude for local auto dealerships' car donations, which enabled students to gain greater expertise that they could directly apply in the workplace.

Which contributions from partners had less of an impact?

Grant team members stated that all the contributions were valued and believed all contributions had a positive impact in one way or another.

Program Strengths and Constraints

Assess the operational strengths and weaknesses of the project after implementation

Strengths

Student Support: According to grant team members at each college, the greatest strength of the RH1 grant was the enhancement of student support services and the grant team members themselves for their role in supporting student success. PRE researchers can confirm that the students' dynamic relationships with grant paid faculty and grant paid educational specialists was a mentor-mentee relationship rather than a top-down teacher-student relationship. Students were offered course-level support, career navigation assistance, and access to other resources that encouraged their success. Students told the evaluators in interviews that the grant paid faculty, educational specialists and grant team members were invaluable to them as students and human beings.

Prior Learning Assessment and Transcript Evaluation: The RH1 supported work on PLA and transcript evaluation should be emphasized as a success separate from overall student support because faster system-wide policy implementation work occurred that benefitted the students. The RH1 grant team members accomplished significant behind-the-scenes work in increasing awareness and altering faculty members' perspective of PLA. Before, PLA did not have a collective term, it was simply credit by exam. The faculty were not aware that students could earn credits in multiple ways. When the faculty members were learning about PLA, they expressed some initial nescience and resistance. The perception was that students were receiving credit for life experience or avoiding being in the classroom, when in fact, they were earning credit for what they had already learned somewhere else. Faculty were also apprehensive about losing FTE in their classrooms, as a Hawai'i Community College RH1 grant team member described:

The perception was that if students were being given credit for Marketing 100, then I'm not going to have students coming to my Marketing 100 class. What was misunderstood was that students that come in with PLA credit are adult students who already have a background and wouldn't come into campus unless they were given their credit. What tends to happen is, even at Hawai'i Community College, students who come in for credit stick around and complete at least five or

six more classes, which brings in more money to the campus, and fills up the other faculty classes. You might not get students in Marketing 100 but you'll get students in 200. Once they started to see that, that made them more open to the idea of working with PLA.

One issue related to faculty buy-in was how to measure students' prior learning. Faculty members in the vocational programs were more receptive to identifying ways to evaluate prior learning in a way that worked for their students, likely because many of them were current practitioners in the field or were practitioners before becoming instructors. Grant team members began conducting more in-depth information sessions about PLA and hosting PLA webinars. PLA and transcript evaluators talked to some faculty members individually, and a PLA expert visited all the campuses and held workshops. The faculty members started to understand what PLA really was and that the grant team members and grant paid faculty and educational specialists were not giving credit away. Faculty members became aware that they would determine who would receive credit and how credits would be measured, and faculty members would develop and approve the assessments. When faculty members became aware that the PLA process would be faculty driven, they became supportive. The humanities departments, however, have remained more skeptical of PLA methods other than CLEP and proficiency exams, although at the time of the evaluation, there had been progress on this front.

Through the consortium work, grant team members expanded the infrastructure by creating more PLA pathways in the institutions' learning management systems, which benefitted transcript evaluation as well. The system-wide policy changes implemented also remedied disincentives for students who switched majors and enabled evaluation of PLA and transcripts before students registered for classes. The portfolio pilot study at Hawai'i Community College illustrated what works and what does not work, created a curriculum for students that fully delineates the process, designed a structure for transcribing the portfolios, and developed an understanding of instructor roles in evaluation. Although Hawai'i Community College has decided not to use portfolios, there is a complete structure in place for the other colleges to draw upon.

Community Relationships: Each of the colleges developed close relationships with community members and asked them about their needs for workforce development. The colleges held many outreach events to promote RH1 programs as opportunities for further education that could result in living wage employment. The aim of making many of the RH1 programs available online or in hybrid format was to decrease economic disparities often experienced by rural communities because of lack of transportation and access to college campuses. The community's feedback was that the online format allowed them to enroll in educational certificates and training that otherwise would have been unavailable. This community engagement was made possible by grant team members who acted as liaisons to form community partnerships with the certificates and training and increase fieldwork, internship, and employment placements for students.

Grant Directors: In interviews with grant members at each college, the evaluators repeatedly heard how well it worked to have island grant directors. These grant directors received abundant recognition from interviewees regarding their support for other grant team members including grant paid faculty and educational specialists, communication skills, advocacy for innovation, and ability to organize many complex program elements.

Constraints

Many of the challenges of grant implementation were related to institutional policies and procedures at each of the colleges, including but not limited to the lengthy process of procurement, new certificate/credential approval processes, and the lack of integration between the credit and non-credit sides of the institutions. These challenges led to slow hiring of grant directors, grant paid faculty, grant paid educational specialists and other grant team members. The slow hiring process resulted in delays in curriculum development and delivery, student support services innovation, and the ability to buy needed educational supports and supplies for certificate programs.

Grant team members at each of the colleges reported experiencing challenges related to being part of grant-funded training and support services at the institutions. In practice this culminated in little to no institutional buy-in, resistance of faculty members in some departments to engage in what they saw as a limited duration initiative, and departmental resistance to innovation, namely, online course support. Detractors often had the perception that online courses were in competition with traditionally offered courses. Significant grant team member turnover occurred late in year two and early in year three; it is unclear if this was related to low levels of support for grant members on an institutional level, or if grant team members were seeking more permanent employment.

A full-time grant funded grant team member who acted community liaison proved to be of value during the grant period in terms of building many strong relationships. Interviewees said that relationship building was not easy initially, because it is helpful when community members interact with the same person year after year. When a liaison is temporary, it is nearly impossible to maintain the relationships that have been created, and community members might start to believe that connections to the colleges are temporary, and therefore might start to resist developing those connections.

The Department of Labor was unclear on their policies regarding counting credit and non-credit participants toward outcomes. The RH1 grant team members adjusted the statement of work accordingly, which resulted in a long approval process with DOL. Workforce needs in rural Hawai'i are markedly different from those of the mainland, in that short, focused training courses and certificate programs that

"I have been working in conservation for four years as a field technician. With my employer's support, I took the GIS 180 class and later completed the PLA to receive the GIS certificate. I became the expert in GIS and database management at my company. I have now been hired to work for a world-wide conservation organization, and GIS continues to be a large part of my duties. I credit the certificate course with giving me the skills I needed to take this step up in my career."

Student in GIS Ecosystem Management Certificate Training

deliver specific skillsets to small populations are most beneficial. Having large numbers of participants in formal degree programs is unrealistic for rural island economies. The impact of federal funding can be maximized through non-credit, focused training programs that result in industry credentials.

Student Feedback and Success

The students expressed their overall satisfaction with participation in the RH1 certificate and training programs. For

example, a GIS student successfully earned credits through PLA, graduated with a certificate in GIS Ecosystem Management, and was able to obtain a new job that was a “step up” in the career ladder. One GIS student who PRE researchers interviewed had already been employed at the onset of the program, but earned a more lucrative position after building new skills through the training. GIS students at UHMC said that they really appreciated participating in fieldtrips to learn how to use GIS technology in the field and analyze the resulting data. Students enjoyed the independent project in which they gathered data by working with industry partners and then analyzed the data themselves. The students presented their projects as posters at the GIS certificate showcase, where they received additional exposure to employers in the industry.

Students in the PHEV certificate training at Kaua’i Community College said they were eager to learn the auto technology of the future and thankful that it was being offered at a community college, having thought that they would need to attend a university to obtain those kinds of skills. The students appreciated that the courses were accelerated, but did not believe the classes could be offered online because of the need to directly experience working with dangerous high-voltage equipment. As one student said, “At first you have to have that direct fear, that if I screw this up, I could die!” The same student said that “having that personal teacher to student connection is really valuable in a hybrid technology class.” After they finished the first two hybrid technology classes, the students said they had “the confidence and the know-how to handle hybrid and electric vehicles like a professional.” The students described their excitement regarding the conversion of a standard fuel car to an electric car, knowing that it is an opportunity that not many other people on the island have experienced, which makes them more marketable in the island economy. That was an opportunity made available through a generous donor to the certificate program. Two students expressed appreciation for the support provided by the grant paid faculty, saying that the grant paid faculty went above and beyond in terms of being available for questions, concerns, and extra help when needed.

One of the Kaua’i business students appreciated being able to take courses online. After graduating with accounting assistant certificates, the student built the skills needed to obtain employment as an office manager assistant. Another student in the same certificate training was apprehensive about taking accelerated courses but was successful, in large part because of the support services, such as the grant paid faculty’s replies to emailed questions, tutoring, and course resources available online.

PRE researchers spoke with two virtual office assistant certificate students from UHMC. One of the students had another institution’s transcript evaluated for some of the requirements and was able to complete the program in two semesters, which would have taken a lot longer otherwise. That student was able to complete all courses except for the internship online. The student stated, “The advantage is that you can work and study at your own pace at your own time. You’re not having to worry about making it to class on time.” The other student was a grandparent with a chronic back condition. This student needed to find work to do virtually from home because there the student could set up a workstation that allows a shift from sitting to standing as frequently as needed. The student said that the online courses were essential in this regard, otherwise, the commute to campus would be an hour and a half, and it would be

“I’m thankful for the Virtual Office Assistant Certificate. It has given me another chance to be a part of a working environment again. This has opened up a complete other world for me.”

impossible to find an appropriate chair in the classroom. The students also expressed gratitude for the support system the program's grant funded educational specialist created in the virtual classroom. One of the students said, "The [grant paid educational specialist] wants to make sure that you have the same communication as when you are face to face. So if you have a question, the [educational specialist] is immediately responding." Both of them said the grant paid educational specialist was always available for any help they might need, and it was also a good way of modeling how to offer people assistance solely online. Both of the students see this certificate as the wave of the future in offering office support remotely, which also opens up new options for a more diverse workforce.

An interview with a business certificate student at Hawai'i Community College who successfully completed a certificate revealed that after receiving career preparation support in résumé writing, interviewing skills, and soft skills development, the student was interviewed through an industry partner connection of the school and hired by a local bank. The student felt really prepared for the position, and at the time of the interview was receiving additional training at the bank that was well-aligned with the knowledge obtained in the program. The student was very happy with the job and was able to purchase a home as a result of the employment. A bank employee was so pleased by the student's performance that the employee contacted the business certificate program coordinator at Hawai'i Community College for more referrals.

Another student from Hawai'i Community College, who had no experience in the field of geothermal energy production, completed the non-credit process technology and industrial maintenance training. Shortly after that, the student was hired at a local geothermal company. The student said the training provided the necessary foundational work skills to succeed in the industry. Another student, also with no previous experience, completed the process technology and industrial maintenance training and was placed in an internship at a local biodiesel company. The student recently transitioned from the internship position to a full-time technician position at the same company.

Program Sustainability

The RH1 TAACCCT program has left a valuable legacy. The creation of a PHEV (automotive shop), sustainability lab, and the new veterans resource centers will benefit students for many years to come. Student workers will likely be able to remain at the VRC through the VA work-study program, which will benefit student workers and veteran students who can access services at the VRC from peers with whom they might have a greater affinity.

Many new and enhanced certificates are now available for students to enroll in, which can prepare students to earn living wages while supporting community and industry needs. Although some of the online certificates will not be sustained, those that are will facilitate greater access to educational opportunities for residents of the rural communities on the islands.

There have been lasting policy and practice changes implemented with the help of RH1 resources for transcript evaluation and PLA that will aid students from diverse backgrounds and experience levels. Continued communication with students about the benefits of PLA and transcript evaluation, along with further development of the procedures, will likely catalyze increased buy-in from faculty members, campus-wide, leading to further institutionalization of these practices.

The continued development of the industry partner engagement CRM system is also a promising endeavor. A CRM system will help foster the valuable relationships the colleges have with community members in a way that is non-duplicative and prevents contact fatigue among partners and community members. The CRM will also hold valuable industry partner information to track contacts and provide information for further grant and initiative proposals.

The RH1 project used TAACCCT training resources and technical assistance to explore more sustainable ways to implement grant funding in the University of Hawai'i community college system as a whole by utilizing internal evaluation. The team created a grant process logic model; key evaluation questions that covered a broad evaluation framework including innovations, technology, storytelling, and sustaining practices. The framework addressed the stages of planning, implementation, and outputs, along with themes that included stakeholder involvement, evaluation, and innovation.

TAACCCT Outcomes

The RH1 consortium's proposed statement of work consisted of delivering credit courses and certificates, as well as non-credit courses that are offered at the three community colleges. The RH1 program plan was directed at training and employment to address the unique needs of the geographically diverse communities, industries, and workforce of rural Hawai'i; therefore, the proposal involved many non-credit courses. Although many of the courses were non-credit, they were sophisticated and innovative solutions to local employment needs. The Food Innovation certificate consists of courses developed for tropical climates that will also serve other remote areas in the world such as the South Pacific islands of Samoa, Guam, and the Marshall Islands. Another training program, Sustainability and Wastewater, centers on courses that train students to work in tropical ecosystems, which have their own challenges (often training and certificate programs are focused on urban and mainland environments). The small business development and training certificate was designed to assist businesses whose economies of scale, sourcing, marketing, and employee pool are limited because of the small populations they draw from and serve. Another set of courses trains Process Technology Technicians needed for geothermal and biofuel companies, which are essential for sustainable living on islands that are limited by the natural resources the ecosystem can provide.

The RH1 consortium found that local employers had been consistently requesting shorter term, skills-based courses that would be appropriate for unemployed workers and incumbent workers who needed additional training to be eligible for vacant positions. Because these programs that meet workforce needs were non-credit, they did not count in the outcome measures reportable for TAACCCT and are not represented in the demographic, educational, and employment data presented below, which only applies to for-credit certificates enhanced with TAACCCT funds.

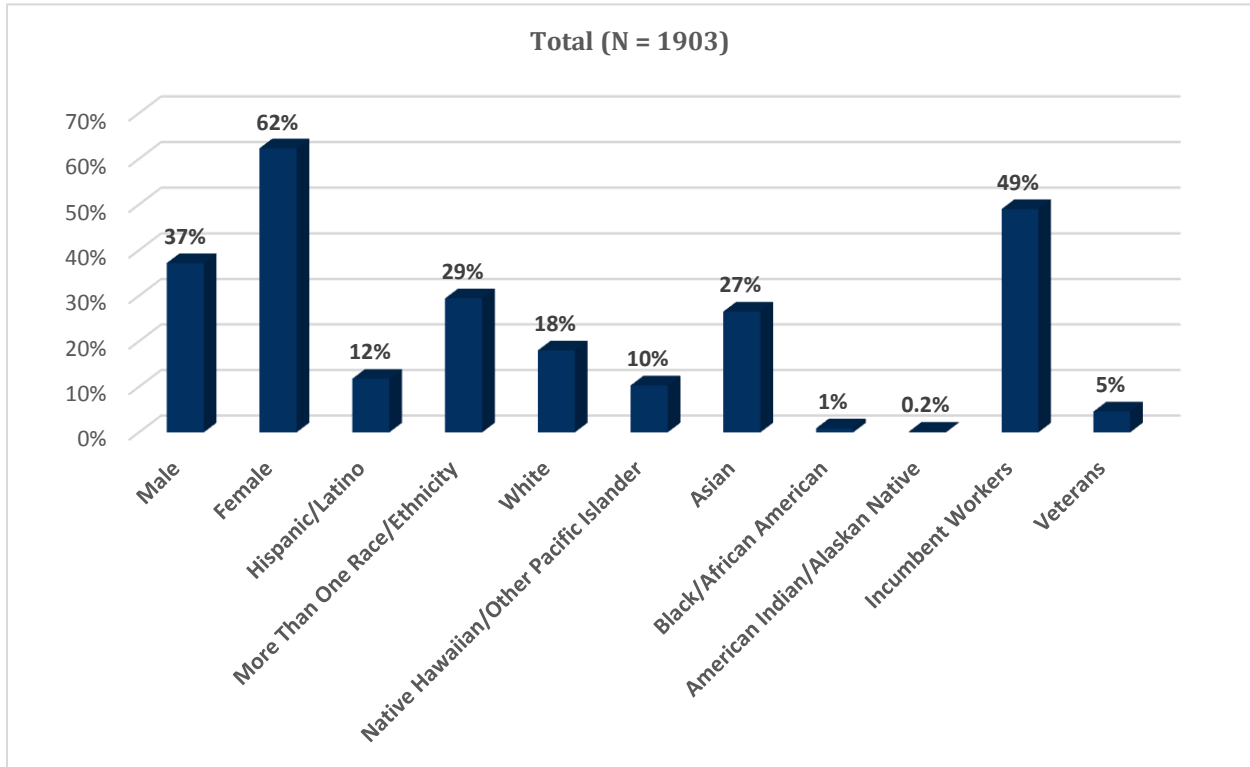
Rural Hawai'i Students

Demographic Characteristics

At the community colleges in the RH1 consortium, 1,903 students participated in for-credit certificates that were enhanced with TAACCCT funds. As Figure 5 shows, the majority of participants were female,

represented more than one race/ethnicity, or were Asian; nearly half of the participants were employed at the time they enrolled in a program.

Figure 5. Rural Hawai'i TAACCCT Participants

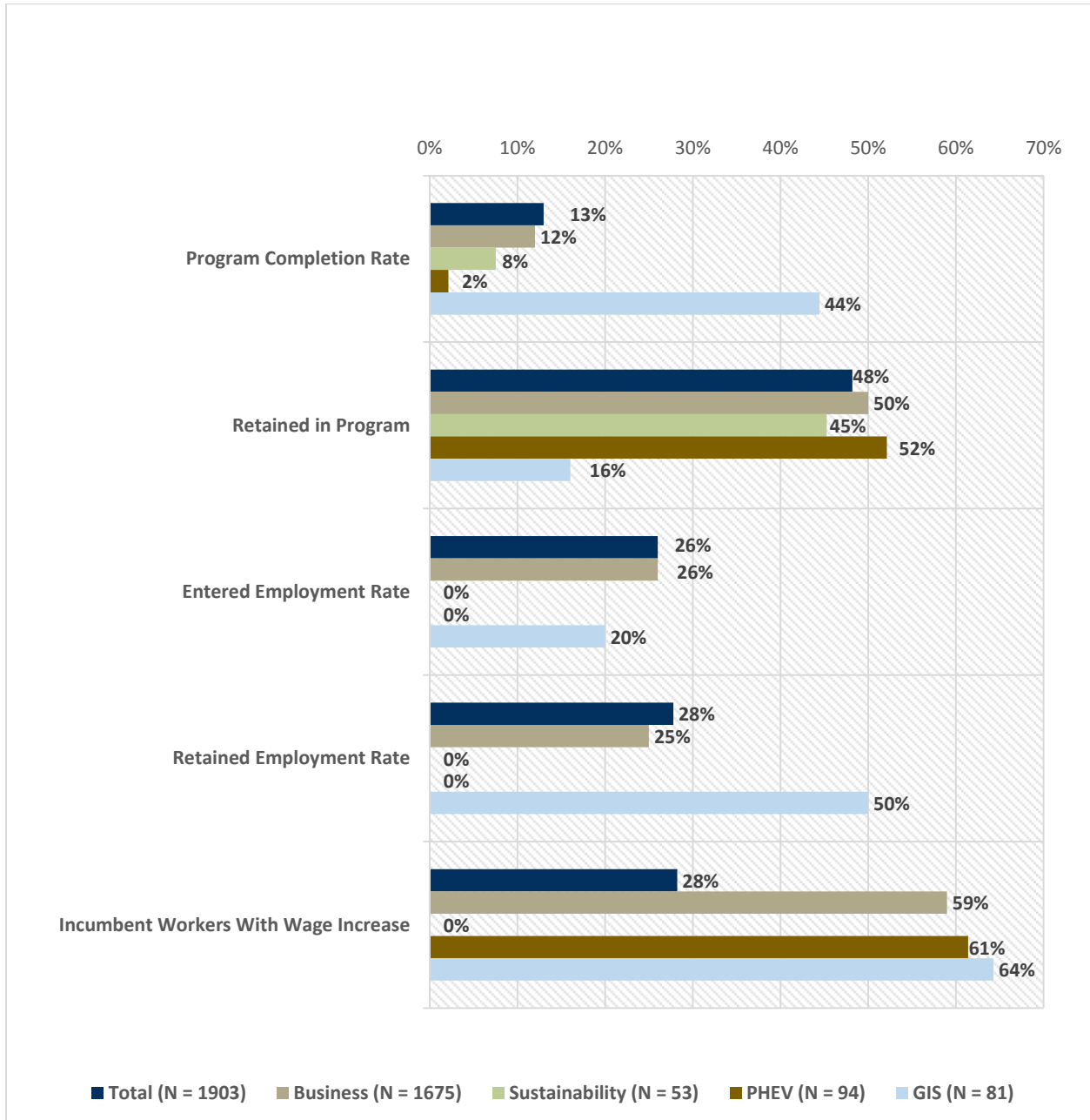


Education and Employment Outcomes

The consortium did not achieve a majority of the numerical outcome goals, partly as a result of the inability to count students in non-credit programs enhanced with TAACCCT funding. The colleges served 1,903 students in credit-based training with an overall completion rate of 13%. The GIS certificate had the highest completion rate of 44%. One of the factors that is likely responsible for the overall low completion rate is that almost half of the students who enrolled in credit-based training were retained in their courses, which means that they were likely still working toward completing those certificates. For all certificates, the rate at which students entered employment was 26% and the retained employment rate was 28%. According to the TAACCCT grant rules, participants who were employed at the time they enrolled in the programs are defined as incumbent workers. They cannot be counted toward employment or retained employment measures, even if they were underemployed. To be counted as retained in employment, the participant would have to become employed within the quarter after completing a certificate and retain employment for two consecutive quarters. Incumbent workers were 49% of the RH1 grant participants in credit-based certificates. As mentioned above, this is largely because workers employed in the local economy needed additional skills to fulfill their employers' needs. Many participants who were incumbent workers received a wage increase after participation in the RH1 TAACCCT certificates: 28% overall, 64% in the GIS Ecosystem Management certificate, and 61% in the

PHEV certificate. The number of students who received a wage increase (537) exceeded the consortium goal (282) by almost two-fold. This indicates that the consortium did not expect so many of their participants to be incumbent workers, another potential reason for not meeting numerical employment goals. See Figure 6 for details.

Figure 6. Educational and Employment Outcomes for All Certificates



Business and Accounting Certificates

Of all the RH1 participants, 88% were Business and Accounting certificate participants. Therefore, it makes sense that their demographic makeup is close to that of the overall composition of RH1-funded certificate participants. The group had a slightly higher percentage of female participants, but not significantly so. All three community colleges had participants in the Business and Accounting certificates (See Figure 7).

Figure 7. Business and Accounting Certificate Demographics

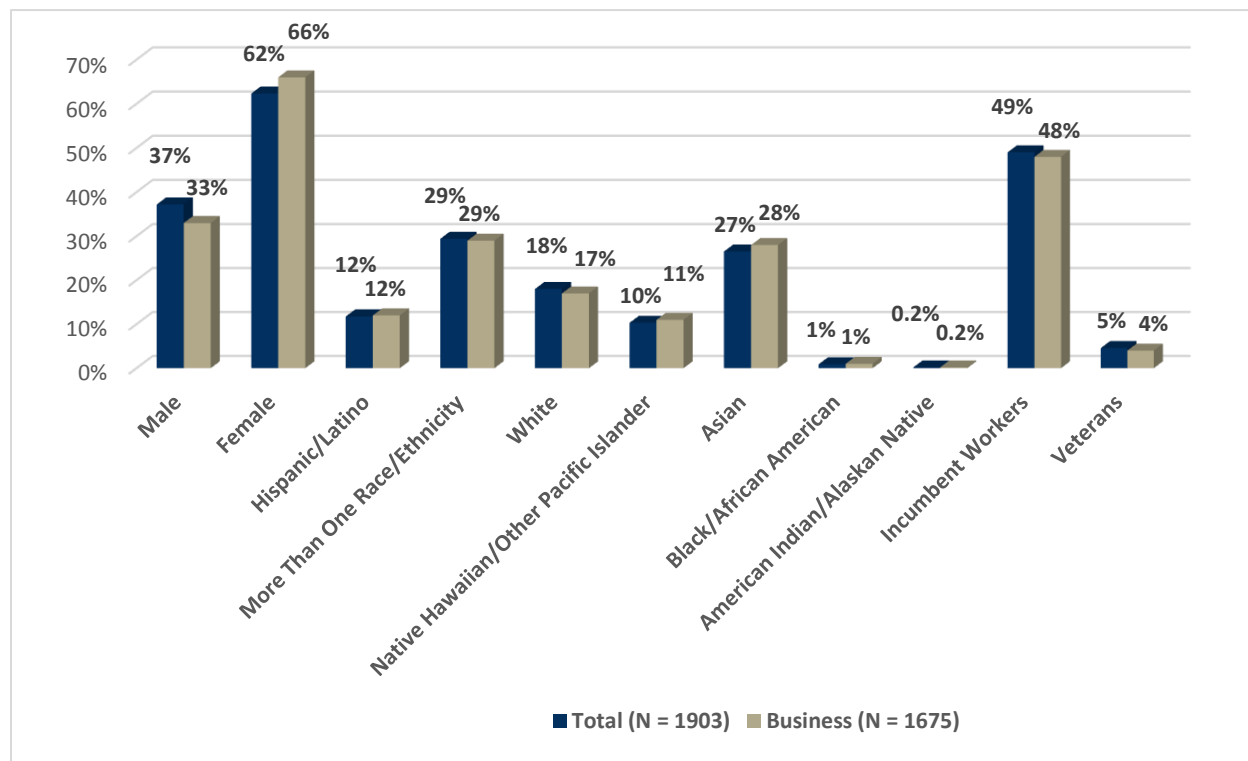
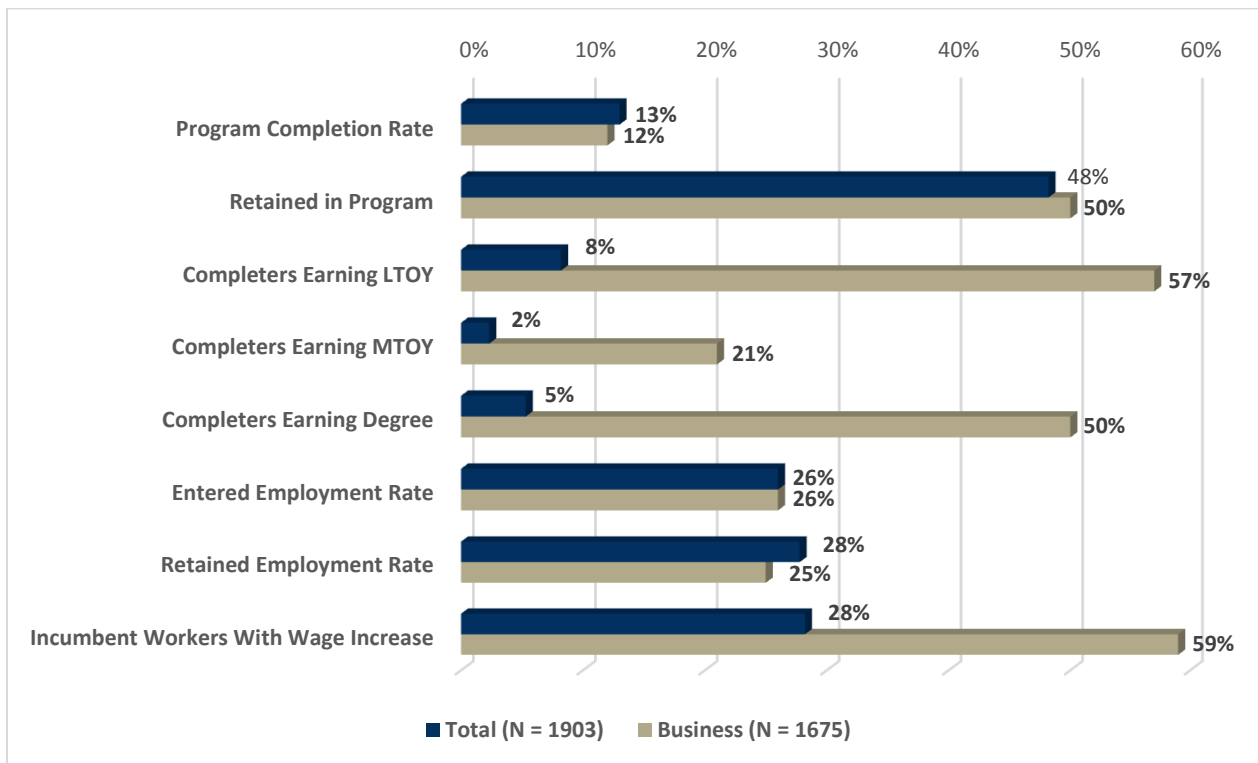


Figure 8 illustrates the educational and employment data for the Business and Accounting certificates. Many of these programs were delivered solely online. As with the whole population, the completion rate of 12% is quite low, but the retained in program percentage is high at 50%. When participants are “retained in program,” it means that they are still enrolled in the RH1 courses, likely still working toward completing the certificate. The Business and Accounting certificates had the most diversity in terms of credential attainment of any of the RH1 certificate programs, which makes sense because these certificates had more credential laddering than the other certificate programs. Students could apply the credits earned in obtaining a less than one-year credential (a credential earned with 44 credits or less) to earning a more than one-year credential (a credential earned with at least 45 credits, but less than 90). Not all certificate programs offered credentials that would be placed in the more than one-year credential category. Some certificates, as in many of the business certificates in the RH1 grant, had less than one-year credentials add up to earning an associate’s degree. Of students who completed a Business and

Accounting certificate, 57% completed a less than one-year credential, 21% earned a more than one-year credential, and 50% earned a degree.

The rate at which Business and Accounting students entered employment was the highest of the RH1 certificates. Of students who were unemployed at the time of enrollment and completed a credential, 26% obtained employment within the first quarter of finishing training. Of those students, 25% retained employment, which means they obtained employment within the first quarter of finishing training and stayed employed for two consecutive quarters. Almost half of the students who were enrolled in RH1 Business and Accounting programs were employed when they started their training, defined as “incumbent workers” by DOL. Of those students who were employed at the time of enrollment, 59% received a wage increase during or shortly after their training. PRE cannot conclude that the wage increase was a direct result of the training, but this is a good outcome for the students nonetheless.

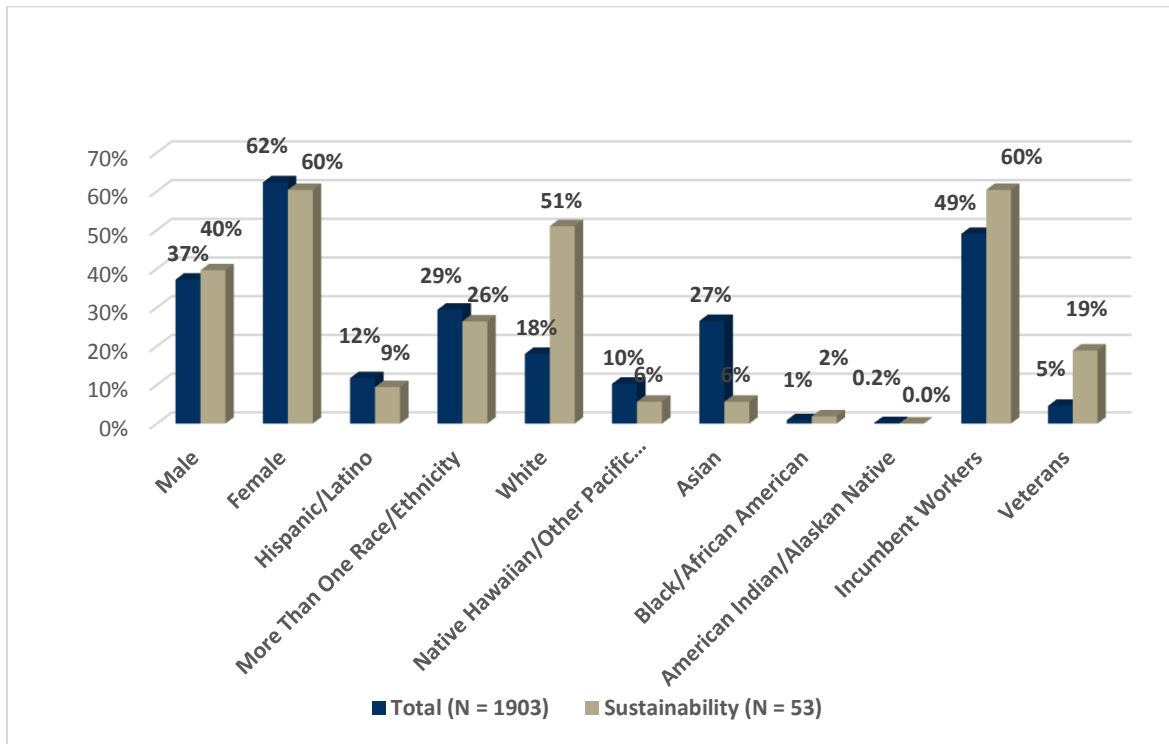
Figure 8. Business and Accounting Certificate Education and Employment Outcomes



Sustainability Certificates

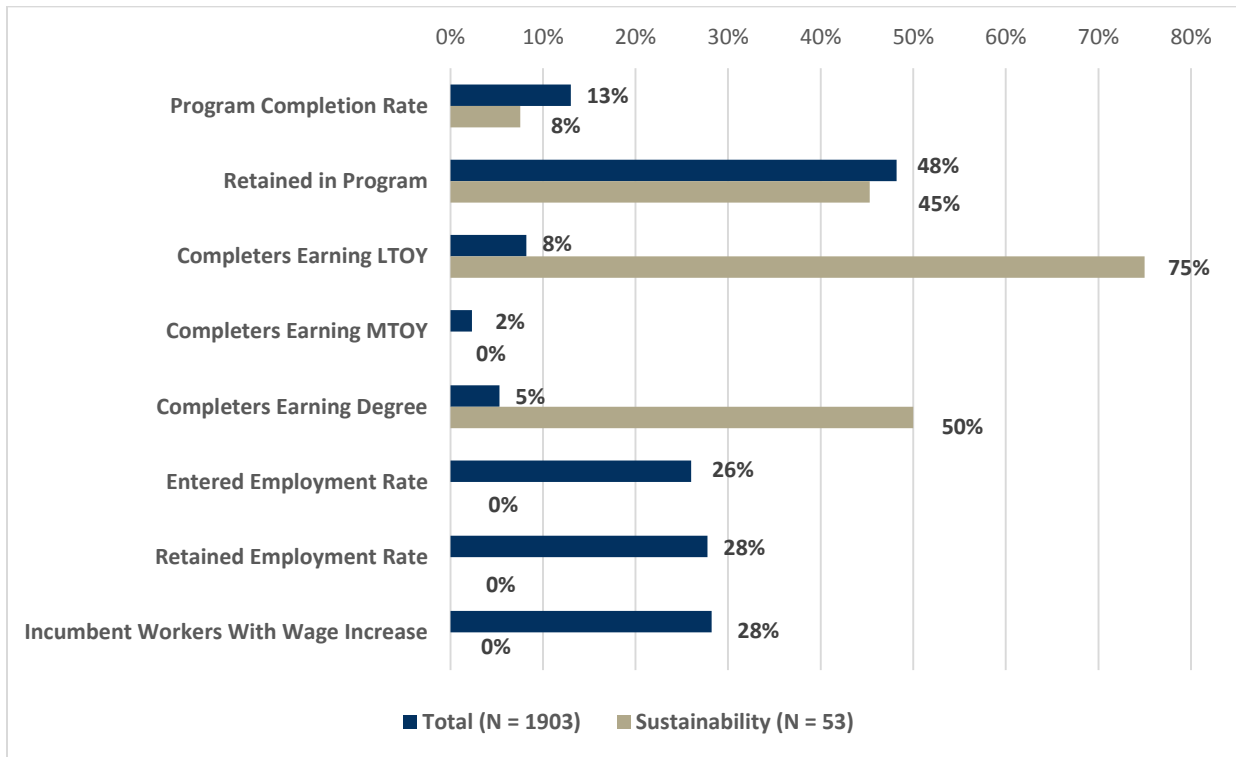
A total of 53 students were enrolled in credit-based certificate programs that counted toward outcomes. This certificate area was the smallest of the RH1 certificates, with 3% of participants. This certificate area, however, had the highest percentage of veterans enrolled, at 19%. This certificates had the highest White population at 51%, and was second only to the GIS certificate in incumbent worker percentage (a 1% difference) at 60%. See Figure 9 for details on demographics.

Figure 9. Sustainability Certificate Demographics



The Sustainability certificate had a rather low completion rate, but similar to other certificates, almost half of the students appeared to be working toward completion of the certificates. All of those who completed the certificates earned less than one-year credentials. All of the participants who completed credentials were incumbent workers, so none of them would have been counted in measures of entered or retained employment. Although a high number of incumbent workers were enrolled in this certificate, none were reported to have obtained a wage increase. See Figure 10 for details.

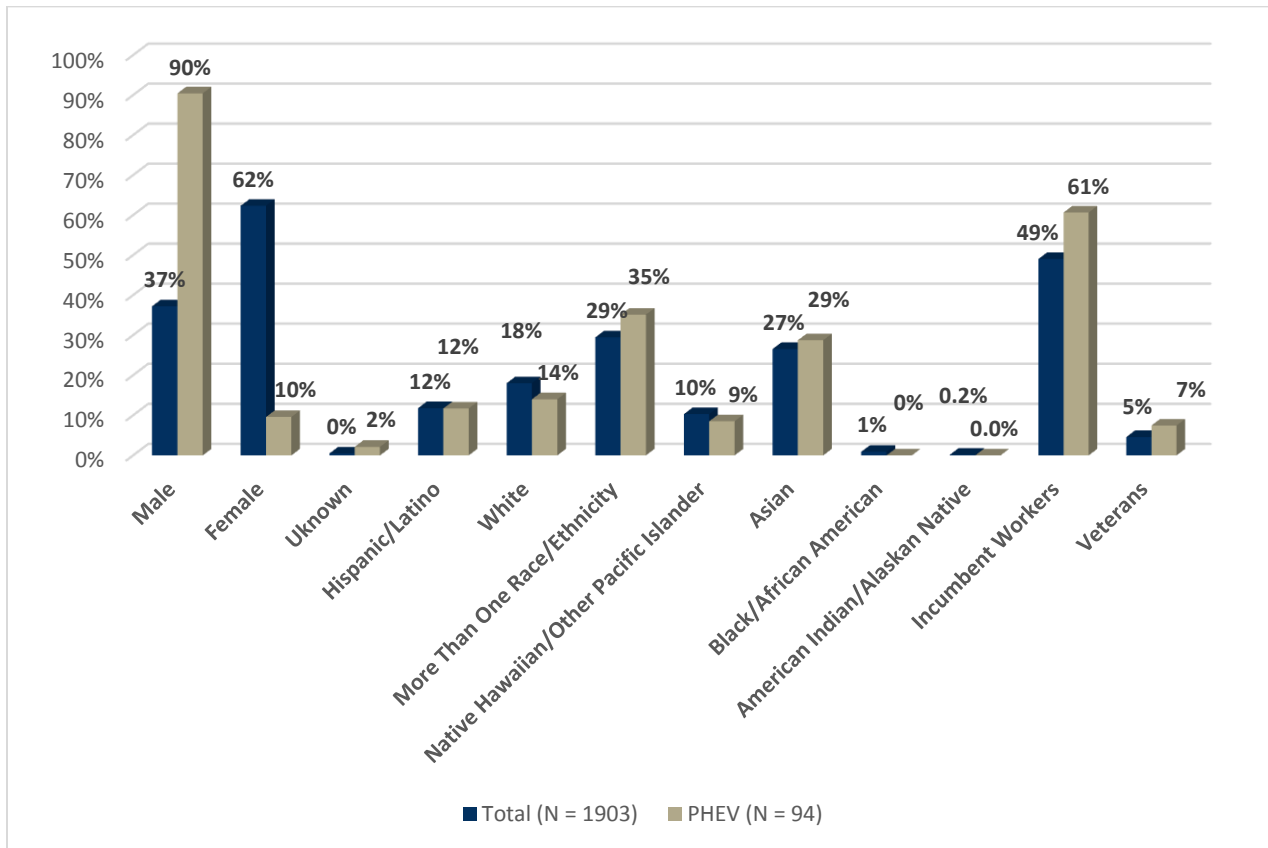
Figure 10. Sustainability Certificate Education and Employment Outcomes



PHEV Certificate

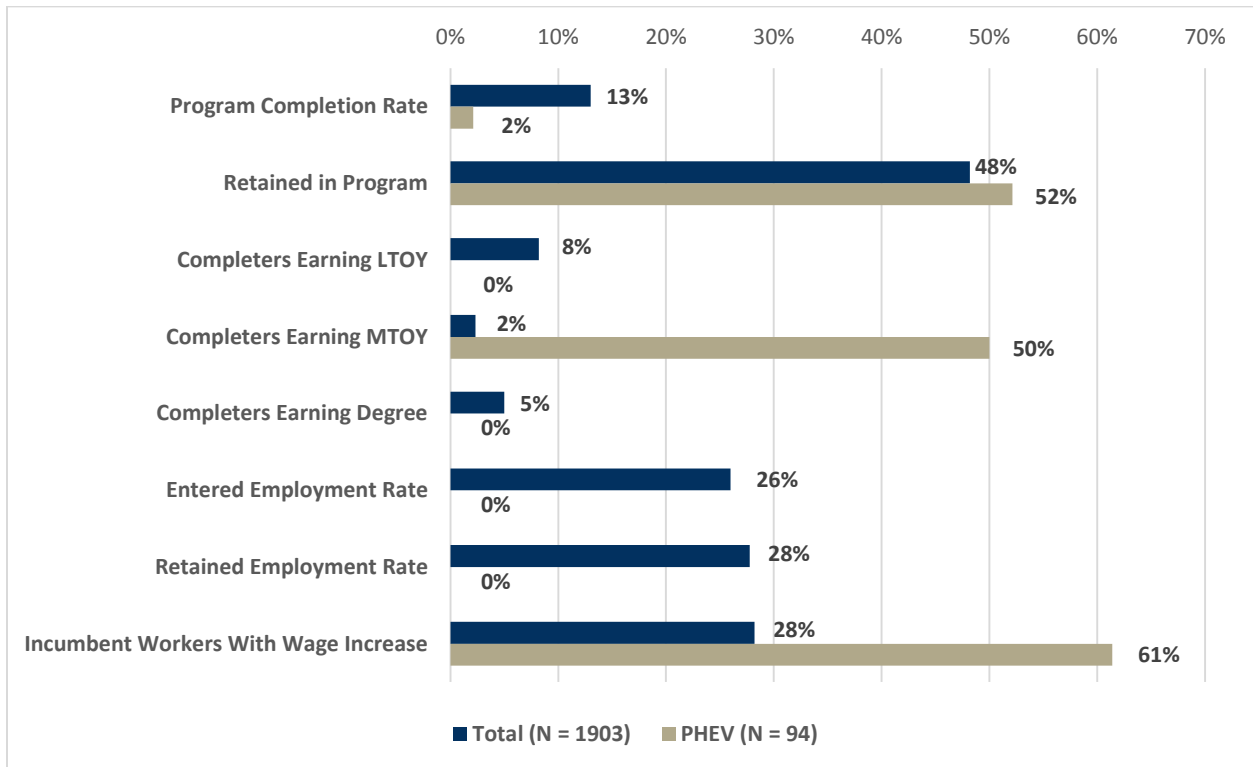
The PHEV program was only offered at Kaua’i Community College, and 5% of RH1’s participant population was enrolled in this certificate program. The PHEV certificate program had the highest percentage of males (90%) of all RH1 certificates. It also had the highest rate of incumbent workers enrolled and the most participants who were multiracial. See Figure 11 for details on demographics.

Figure 11. PHEV Certificate Demographics



The PHEV certificate had the lowest completion rate (2%), but the highest rate of program retention at 52% (See Figure 12). Similar to the other certificates, this likely means that participants were still enrolled and working toward completion. All of the students who completed the certificates were incumbent workers, meaning that no one had entered employment or retained employment. Of the 57 incumbent workers enrolled, 61% had received a wage increase. Incumbent worker wage increases count toward outcomes regardless of participant completion of the certificate.

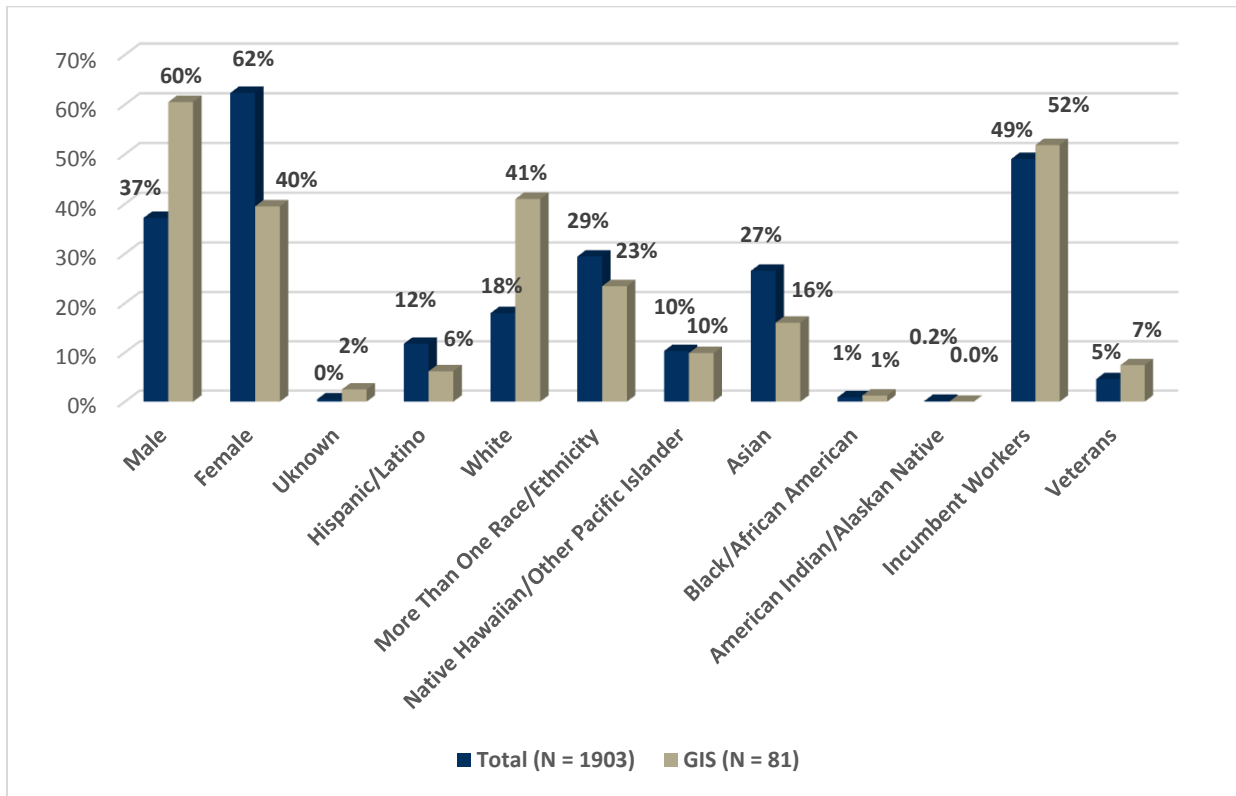
Figure 12. PHEV Certificate Education and Employment Outcomes



GIS Ecosystem Management Certificate

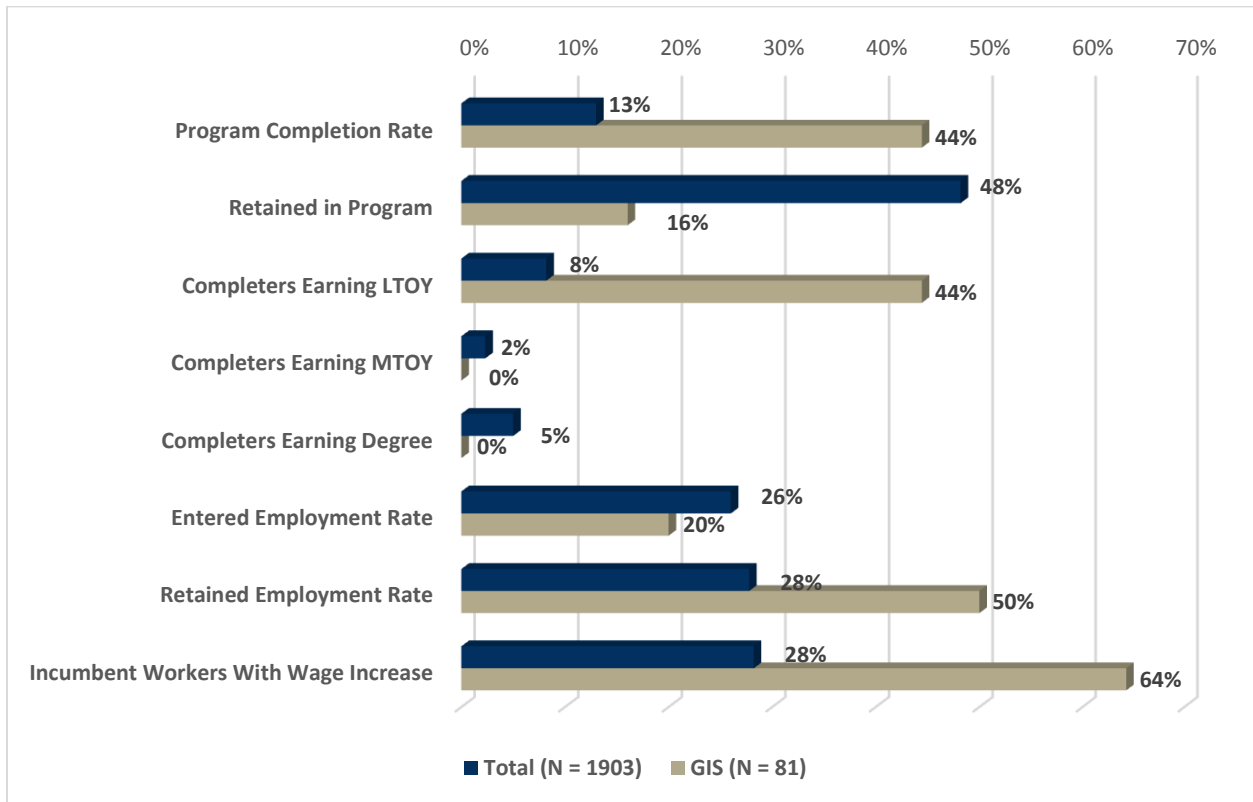
The GIS certificate was offered at all three community colleges and consisted of the same online course content. Four percent of the TAACCCT population was enrolled in the GIS certificate course. Of those, a majority were White, male, and employed at the time of enrollment (See Figure 13).

Figure 13. GIS Ecosystem Management Certificate Demographics



The GIS certificate had the highest completion rate of any of the RH1 certificates, and consequently the lowest course retention rate. This certificate also had the second highest entered employment rate, and the highest retained employment rate, meaning that when people obtained employment, they tended to stay employed. The GIS certificate also had the highest incumbent worker wage increase rate: 64% of participants who were employed when they enrolled in the certificate had received a wage increase. See Figure 14 for details on education and employment outcomes.

Figure 14. GIS Ecosystem Management Certificate Education and Employment Outcomes



Evaluation Insights

Although the TAACCCT grant for the Rural Hawai'i consortium will conclude in September 2016, PRE has the following insights regarding the body of work that has been developed and implemented in the last four years. These observations are based solely on the data collected through the evaluation activities referenced in this report.

PLA and Transcript Evaluation: The RH1 grant team members have made substantial progress on implementing system-wide initiatives to award credit for previous learning through career experiences and education from other institutions to help students complete their programs more quickly. PRE recommends that each college continue, as institutional resources allow, this work by further developing policies and practices based on the feedback of students and faculty. The campus administration and faculty should endeavor to advance the institutionalization of PLA, increasing buy-in from faculty members across all departments in the colleges. PRE recommends that the consortium sustain dedicated transcript evaluators, as has been done at UHMC, and proceed with efforts to increase student awareness of opportunities to gain credits through transcript evaluation.

Student Support and Retention Services: Through the grant funds directed toward student support, academic and career advising, students' needs have been addressed more comprehensively. As institutional resources allow, PRE recommends that the colleges continue the practice of intrusive advising, which involved grant team members, including grant paid faculty and grant paid educational

specialists contacting students and inquiring about how they are doing, instead of waiting for students to approach them.

Work readiness support, which has been successful in supporting students in obtaining employment, should also continue and evolve on each of the campuses as institutional resources allow. Grant team members offered assistance through formal workshops, classroom presentations, and individual meetings. Some of the skills covered in the work readiness sessions were job search and placement, résumé building, interviewing (including mock interviews), time management, and workplace etiquette.

Online Course Delivery: The online courses that have been developed and implemented through the RH1 project have increased the accessibility of college courses for rural communities on each of the islands. For courses delivered in a compressed format, students found it beneficial to work at their own pace and finish course material more quickly, which allowed them to enter the workforce or advance at their companies on a shorter timeline. Although some of the courses were no longer offered online at the time of the evaluation, PRE recommends the use of online delivery when feasible.

Industry Partner and Community Engagement: A major strength of the consortium was the comprehensive industry partner and community engagement work that consisted of identifying the needs of employers and community members and communicating corresponding training opportunities at the colleges. Community engagement efforts succeeded because there were dedicated grant team members at each college who worked on these efforts over a period of time. Interviewees said that partners communicated that it could be challenging to engage with new grant team members, which frequently occurs as a result of temporary initiatives and grant cycles. PRE recommends sustaining a consistent community liaison for a department or group of departments as institutional resources allow. The development of the Customer Relationship Management system (CRM) will also help keep this engagement sustainable. Such databases are helpful in preventing contact fatigue and burnout among industry partners and community members. In addition, the CRM can help in tracking communication and relationships to best utilize resources and information for initiative and grant applications.

Grant Directors: In interviews with grant team members on each of the islands, the evaluators repeatedly heard how effective the grant directors on each of the islands were. Interviewees expressed positive regard for the directors' grant team member support, communication skills, advocacy for innovation, and ability to organize many complex program elements.

Insights Summary

After extensive document reviews, and quantitative and qualitative data collection and analysis, the evaluators resolve that the RH1 project had many successful elements. Through extensive curriculum enhancement, new and improved certificate and training programs provided the communities of the rural islands of Hawai'i an opportunity to enroll in more accessible training that afforded them an opening to living wage employment. Through opportunities from RH1 funding, more expedient implementation of broad policy changes related to PLA and transcript evaluation afforded students with greater access to receiving credits for prior learning through life experience and education received at other institutions, with the intention of decreasing the completion time of certificate and credential attainment for students. In addition to the implementation of policy changes, there were extra support systems put in place to

bolster student success in the form of grant team member provided intrusive advising and tutoring, and work readiness training. Community and industry partner engagement was another successful element at all three colleges. These partners positively impacted curriculum development, leveraged resources for improving learning environments and supplies, and provided access to field work sites, and internship and job placement for students. All of this was made possible because of effective grant directors who facilitated productive collaboration and communication among the three colleges. This consortium has shown that it has the ability to successfully implement cooperative projects, and, for the benefit of their communities, the evaluators encourage them to pursue more opportunities to do so in the future.

Appendix A: Glossary of Terms

Campus Administration: University of Hawai'i administrators that were not paid using grant funding, including for each campus: Chancellors, Vice Chancellors and Directors of Offices of Continuing Education and Training.

Educational Outcome Measures:

Program Completion Rate: Percentage of participants who completed a grant impacted certificate of total participants.

Retained in Program: Percentage of participants who have yet to complete certificate, but are still enrolled in grant funded courses.

Completers earning LTOY: Percentage of participants who have completed a Less Than One Year certificate of all completers.

Completers earning MTOY: Percentage of participants who have completed a More Than One Year certificate of all completers.

Completers earning Degree: Percentage of participants who have completed a Two Year Degree certificate of all completers.

Employment Outcome Measures:

Entered Employment Rate: Percentage of those participants who were non-incumbent workers at enrollment who completed a certificate, and entered employment within the first quarter post program exit.

Retained Employment Rate: Percentage of those participants who were non-incumbent workers at enrollment who completed a certificate, entered employment within the first quarter post program exit and continued to be employed for two additional quarters.

Incumbent Workers with Wage Increase: Percentage of participants who were employed at enrollment, who received a wage increase post-enrollment, regardless of completion status.

Faculty: University of Hawai'i faculty and lecturers that were not paid using grant funding but, but were part of the programs that received grant funding for new or revised curriculum or new educational supplies or equipment.

Grant Directors: A grant paid staff member on each of the RH1 island colleges who oversees grant implementation.

Grant Paid Educational Specialists: Grant funded employees that developed curriculum and delivered courses to grant participants.

Grant Paid Faculty: Faculty and lecturers that received grant funding to develop or revise curriculum or to deliver courses to grant participants.

Grant Team Member: Grant funded employees including island directors and outreach coordinators.

Incumbent Worker: A participant who was employed in non-subsidized employment at enrollment of the grant.