TABLE OF CONTENTS

Project Hōkūlani

(A) NEED FOR PROJECT **1**

(B) QUALITY OF PROJECT DESIGN **6**

(C) QUALITY OF PROJECT SERVICES **12**

(D) QUALITY OF PROJECT PERSONNEL **18**

(E) QUALITY OF THE MANAGEMENT PLAN **22**

(F) QUALITY OF THE PROJECT EVALUATION **28**

A. Need for Project

A(i) Magnitude of the Need for the Intervention to be Provided

Underrepresentation of Native Hawaiians and Individuals with Disabilities in STEM

Science, technology, engineering, and mathematics (STEM) play a major role in solving problems in today's world. Thus, being capable in STEM is now viewed as key to productivity in technological adaptation and research-based innovation. Recruiting talented people from diverse backgrounds into STEM fields is essential to ensure high-quality research and practice (Disabilities, Opportunities, Internetworking, and Technology, 2013), and working together with people from different backgrounds, experiences, varying cognitive abilities, and disciplines in STEM fields brings about a creative advantage (Packard, 2016). In order to diversify the STEM workforce, there is a need for high-quality STEM education for all Americans, particularly those who are underserved and under-represented in STEM fields (U.S. Government, 2018).

Although there is an obligation to draw on new talent sources to make the STEM workforce as strong and diverse as possible (Hossain & Robinson, 2012), Native Hawaiians (NH) and individuals with disabilities (IWDs) are significantly underrepresented in STEM fields (Bittinger, 2018; Kerr et al., 2018). According to the 2011 U.S. Census, the combined population of NH, Pacific Islanders (PI), and 'Other Race' accounted for 4.6% of the overall U.S. workforce but only 1.4% of the STEM workforce (Nguyen et al., 2016). IWDs accounted for 19.1% of the U.S. workforce but only 9% of the STEM workforce (NSF, 2019; U.S. Bureau of Labor Statistics, 2019). Meanwhile, the STEM workforce will grow faster than any other sector (U.S. Bureau of Labor Statistics, 2017). In Hawaiʻi, STEM jobs will increase by an average of 11% from 2018 to 2028 (The Alliance for Science & Technology Research in America, 2019).

Underperformance in STEM & Underrepresentation in Postsecondary STEM Programs

The Digest of Education Statistics data show that NH students, reported together with PI, lag significantly behind White and Asian students in math scores at grades 8 and 12, and the gaps seem to widen over time (Snyder et al., 2019). For example, at grade 8, the average math score for NH/PI students was 31 points and 30 points lower than the average score for their White and

Asian peers in 2019 and 19 points and 38 points lower than White and Asian students in 2017. Such achievement gaps between NH/PI and White and Asian students' average math scores were also observed in the 12th grade. Moreover, a similar pattern was observed in science performance as well—the average scores for White, Asian, Hispanic students in 2015 were higher than NH/PI students, while the average score for NH/PI students was not measurably different from the scores in previous years (McFarland et al., 2019). Such discrepancy can also be observed on the statewide Smarter Balanced Assessment (SBA) results. For example, only 1 in 7 NH students in grade 11 is proficient in math, compared to more than 1 in 3 non-NH students (HIDOE, 2017).

Such underperformance of NH students in K-12 STEM negatively affects their participation in postsecondary STEM programs and success in STEM degree attainment. In analyzing the Fall 2019 data of University of Hawaii (UH), Institutional Research and Analysis Office, it is apparent that NH students are significantly less likely to enroll in STEM programs and thus, less likely to obtain a STEM degree than non-NH at the UH-Community College level (NH-21.7% vs. non-NH-78.3% in STEM major; NH-20.7% vs. non-NH-79.3% in associate's STEM degree). Further, such discrepancy is more alarming at the UH at Manoa (NH-11.7% vs. non-NH-88.3% in STEM major; NH-9.6% vs. 90.4% in bachelor's degree in STEM).

Limited 'Ohana Engagement with Children's STEM Education and College Transition

Research posits that lack of financial resources (Anderson & Kim, 2006), limited cultural and social capital (defined as knowledge of campus environment, access to human and financial resources, familiarity with the general functioning of the higher education settings, see Bourdieu, 1986; Kim & Schneider, 2005), and cultural differences on the role of parenting (Tran et al., 2010) are obstacles faced by the minority families which subsequently affect their teens' aspirations to enter STEM programs in postsecondary education. Tran et al. (2010) noted, among indigenous communities, parents typically hold the belief that they are not the stakeholders in their children's educational process, so they are less likely to intervene in the domain of schooling. Furthermore, most racial/ethnic minority students are also first-generation college-goers, who are found to have lower GPA and withdraw early in their postsecondary careers at a higher rate than their peers who are not first-generation college-going students (Atherton, 2014). The added challenge is seen for students with disabilities (SWDs). The parental expectations are lower for SWDs than their counter peers in college transition (Lee, 2011). Furthermore, parents and teachers may hold the misperception that these students are incapable of pursuing STEM careers, urging students to pursue other fields (Alston & Hampton, 2000; Alston et al., 1998).

A(ii) The Extent to Which Identified Missed Opportunity to Be Addressed by the Project

Underlying Reasons for the Problem & How to Address the Barriers

Further investigation of the problem, missed opportunities in STEM by NH, identifies four salient reasons: few role models, lack of mentors, cultural barriers, and limited school funding and family resources for quality STEM education. Approaches taken by proposed Project Hōkūlani to address the barriers are presented below.

(1)Few visible role models: A role model is someone to whom a person feels similar and would like to be (Gibson, 2004). Tran and her colleagues (2014) identified that absence of role models and mentors in the indigenous communities was a major barrier to higher education pursuits. Similarly, SWDs do not have access to role models in STEM fields (Alston et al., 2002), negatively influencing their own interest in such majors. Yet, there is a large body of research that indicates the importance of having a role model in STEM (Griffith, 2010; Johnson et al., 2019), particularly for minority students in fostering strong academic role identities, academic performance, and persistence to degree completion (Chemers et al., 2011; Osborne & Walker, 2006). Johnson et al.'s (2019) study suggest that having a role model who matches students' race/ethnicity and share their identity is essential to increasing their sense of belonging and career aspiration in the STEM fields. Aldous et al. (2008) also identified having aboriginal role models for high school indigenous students in Australia as one of the key components contributing to their success in increasing students' participation and achievement in STEM. Moreover, at the 2019 SACNAS-The National Diversity in STEM Conference, the panelists indicated that role models close to indigenous students' age motivate them better than nationally renowned professionals. Students tend to feel more connected rather than overwhelmed.

Approach: Project Hōkūlani will invite NH role models of various ages and in various STEM career stages to present and share their experiences with participants.

(2)Lack of mentors: Mentors are individuals who provide advice and support to a protégé through an *interaction* relationship (Higgins & Kram, 2001). Studies have reported that minority individuals and SWD enrolled in STEM generally receive less mentoring than their well-represented peers and non-SWD (NSF, 2019). However, positive mentoring experiences are consistently linked with positive behavioral, mental health, and academic outcomes (Karcher, 2008). Wilson et al. (2012) found that higher quality mentoring relationships were related to several aspects of youth competence, including feelings of connectedness to school, greater self-efficacy, and more positive social relationships. Leake et al. (2011) also found that mentorship helped SWD to take steps towards their personal, academic, and career goals. Mentoring can mitigate a feeling of alienation and disability-related stigma of SWD in STEM (National Academies of Sciences, Engineering, and Medicine, 2019).

Approach: The project will recruit two types of mentors: (a) academic and cultural mentors, and (b) STEM internship mentors. Unlike role models, these mentors will work closely with the students through the intervention sessions and internship projects. For academic and cultural mentors, NH undergraduate, graduate students and kūpuna (admired teachers) will be recruited to run mentoring and college transition sessions together with project staff. Highly qualified professionals at the internship sites will be recruited to be STEM mentors to guide internship.

(3)Cultural barriers: Marginalization, cultural bias, and cultural mismatch between the lived experiences of indigenous students and the cultural lens, through which STEM content is presented, poses significant challenges to minority students' engagement and persistence in STEM (Harrison et al., 2006; Kerr et al., 2018; Kupferman, 2008; Migus, 2014; Paige et al., 2016). As is often the expectation with science learning, students ought to assimilate to the norms of science culture, traditionally positioned as an endeavor of Western European white males (National Research Council, 2009). Such view is echoed among NH researchers contending that both the content and methodology used to present science are incompatible with the cultural norms and notions of NH (Kelson et al., 2003). Culturally-Based Education (CBE) emerged in response to this criticism and showed that that learners thrive within CBE programs that honor indigenous values embedded in the learning environments, as seen in their increased socio-emotional wellbeing, engagement with STEM learning, and math achievement (Kisker et al., 2012; Miller & Rohrig, 2018). Therefore, researchers have underscored the need to embrace a broader range of indicators beyond educational indicators, such as family and peer relationships (Dreise & Thomson, 2014), cultural identity and affiliation (Kanaʻiaupuni et al., 2017), and growth mindset (Masters, 2013). Like an ethnic culture, disability can be represented as a culture, created by IWDs themselves to describe their own life experiences (Brown, 2002). SWD often experience marginalization in a 'normal' school culture and STEM learning environment for the inaccessible educational materials and instruction as well as remediation focused education, stemmed from a medical model of disability.

Approach: Grounded in the NH cultural values, the project will have students learn with their cultural peers, sharing a similar interest in STEM, and culturally competent, qualified, and experienced mentors and involve ʻohana (family) in the process. Having cultural peers, mentors, and ʻohana will increase sense of belonging to STEM environments. In addition, aligned with Nā Hopena Aʻo, the project will make STEM content authentic and relevant to students by providing NH and local culture-based "hands-on" activities and internship opportunities at their local STEM workplaces. As respecting NH cultural emphasis on pursuing communal goals and helping others, the project will guide students to learn in small groups, collaborate to solve community or work-based problems, and share the findings with their communities. To address the cultural bias in assessing student outcomes, the project will include the four specific HĀ: BREATH indicators (i.e., sense of belonging, place, responsibility, and excellence) in the main outcomes. It will also help with cross project evaluation for the NHEP. To address the cultural marginalization of SWD and promote their sound disability culture and identity, this project will provide strengths-based education, focusing on the cultivation of students' potential in STEM while providing reasonable accommodations to students and a growth mindset training to the students, mentors, and ‘Ohana. Accessibility to all materials and website will also be ensured.

(4) <u>Limited school funding and family resources to quality STEM education:</u> Ethnic minority students oftentimes come from economically challenged families with fewer financial sources to provide overall academic support (Crisp & Nora, 2012; Orr, 2003) and tend to experience a lack of school funding for quality STEM instruction (Ejiwale, 2013; George et al., 2014). Similarly, SWD are often excluded from certain challenging STEM courses (Lee, 2011). Moreover, researchers (Goldring et al., 2013; Logan et al., 2012) indicate racial/ethnic segregation of schools that concentrates minority students in poorly funded, underperforming, and understaffed schools. This is of particular concern, given that NH students attended schools where minority comprised 75% of the total enrollment, compared to 51% of the White students attending schools where minority was 25% or less of total enrollment (de Brey et al., 2019). As Ingersoll and Perda (2010) noted, 40% of math classes in high-poverty schools were taught by underqualified out-of-field teachers, whereas 83% of classes were taught by teachers with math degrees in schools serving the fewest low-income students. Thus, the combined effects of low family SES and racial/ethnic segregation lead minority students to have a higher attrition rate from and poorer performance in the STEM pipeline than Whites and Asians (Ross et al., 2012).

<u>Approach</u>: The project will provide a free, quality STEM program to NH students eligible for free or reduced price lunch, enrolled in a Title I school, or with disabilities as priorities. Considering that many of these students will be the first generation in college and may not have a role model in STEM, the project will host sessions on a college campus and at a STEM workplace to help them envision themselves enrolled in college and working at the field and experience available resources, such as STEM labs and professional equipment.

B. Quality of the Project Design

<u>B(i) Appropriate Design to Address the Needs of the Target Population</u>

Priorities, Goals, Objectives, and Intended Outcomes

Taking the approaches, written in A(ii), this 3-year project, entitled Project Hōkūlani (meaning heavenly star), is proposed. This project will address the **three absolute priorities** of the NH Education Program grant: (1) the needs of at-risk youth (NH SWD); (2) the needs of fields in which NH are underemployed (STEM fields); and (3) the use of the Hawaiian language in instruction. It will also address the **two competitive preference priorities**: (1) promoting STEM, including computer science, through hands-on learning opportunities and (2) fostering flexible and affordable paths to obtain knowledge and skills by STEM internship.

The **project goal** is to create a seamless and supportive STEM education pipeline for NH youths to bolster their aspirations to enter postsecondary STEM fields. Ultimately, the project will enhance local capacity to support NH youths' career development in STEM fields and make them future shining stars in STEM fields. The goal will be achieved through a five-component, star shape intervention model, called the **Hōkūlani Model**. Hōkūlani Model is culturally responsive, strength-based, and work-based. As shown in Figure 1 below, the model consists of five components: academic enrichment, mentoring, college transition support, internship, and ʻohana involvement. *(The research base of the model is provided in C(ii).)*

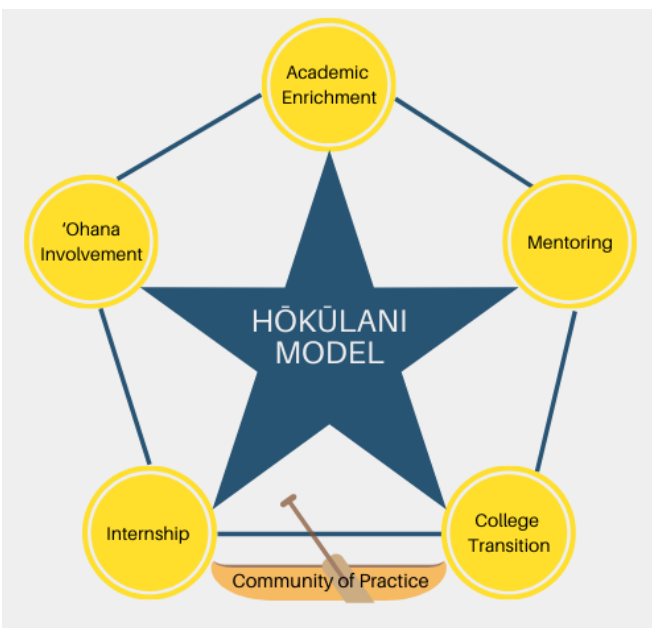

Figure 1. Hōkūlani Model

(1) Academic enrichment (40 hours): 24 hours of STEM hands-on activities and 16 hours of internship project development; (2) Mentoring (10 hours): Cultural, STEM interest building, and growth mindset mentoring; (3) College transition support (10 hours): college application, personal essay writing, financial aid and scholarship applications, college STEM programs and pre-requisites, and study skills for STEM; (4) Internship (40 hours): Paid summer internship conducting a small group or individual internship project at a local STEM work site (5 students

and 1 internship STEM mentor per site); (5)‘Ohana involvement (11 monthly sessions): hands-on STEM activities, evidence-based strategies to teach STEM at home, college, scholarship, and financial aid applications, early college and dual enrollment program, and internships.
Refer to Appendix B for the topics and schedule of 20 week 3-hour student sessions and 40 hour summer internship. Refer to Appendix C for the 11 monthly ‘ohana lesson topics and schedule.

As shown on the bottom of the Figure 1, the model will be implemented under the guidance of a NH STEM Community of Practice (**COP**). It comprises groups of people who share a concern or passion about a topic and deepen their knowledge and expertise by interacting on an ongoing basis (Wenger et al., 2002). For this project, COP will consist of cultural, STEM, college transition, and internship experts from O‘ahu, Hawai‘i, and Moloka‘i islands and meet quarterly to provide guidance on the project direction, implementation, and evaluation.

Target students are 110, 9 to 11th grade NH students (60 from O‘ahu; 30 from Hawai‘i Island; 20 from Moloka‘i), including 30 SWD, who have high interest and aptitude in STEM fields, over the project period. The project targets high school students based on the mounting evidence suggesting a strong association between students’ interest in STEM at high school and their STEM-degree completion status (Maltese & Tai, 2011; Nugent et al., 2015; Simpkins et al., 2006). For minority students, Lichtenberger and George-Jackson’s study (2013) also support that interest in STEM at high school is key to declaring a college STEM major and that long-term success in STEM is contingent upon the opportunities for adequate academic preparation in STEM, prior to college. The student selection criteria and procedure for the project will be determined along with the project COP as examining the cultural appropriateness, importance in STEM professions, and fairness of multiple data sources. Examples include student essay, teacher and parent recommendation, STEM course grades, Multiple Intelligence scale, and STEM aptitude checklist. We will also recruit at least 55 of ‘**ohana** of selected students.

The students will be supported by NH cultural and academic mentors and STEM internship mentors in addition to the project staff. The ratio of **cultural and academic mentors** to students is 1 to 10. The desirable qualifications of a cultural and academic mentor include: NH undergraduate and graduate students or kūpuna who are from the community, have a deep cultural understanding, familiar with college transition process, have experiences mentoring NH students with or without disabilities, have experiences in managing a high school student group of 10, and can commit to the project for 2 experimental periods. The mentors will work with the project staff to provide college transition sessions, cultural mentoring, STEM interest building, and growth mindset sessions. The mentors will take a 2-hour core PD course on-line to learn the Hōkūlani Model, needs of the students, evidence-based teaching strategies, mentorship, and FERPA upon recruitment. They will also learn the college transition and mentoring lessons. Their role is to build and maintain a close relationship with students throughout the year to facilitate the development of students' cultural identity, college aspiration, and growth mindset.

The ratio of **STEM internship mentors** to students is 1 to 5. A STEM internship mentor will be recruited from each internship site. The desirable qualifications of a STEM mentor include: those working at STEM internship site, being considered an expert in the specific STEM field, have research or project experiences, have experiences guiding NH students with or without disabilities for their research projects, have experiences in managing a high school student group of 5, and can commit to the project for 2 experimental periods. The mentor will also take the 2-hour core PD course upon recruitment and then, a specialized PD course to learn how to guide the students' internship projects. The role is to actively guide a group of 5 students for their internship project development during a school year, guide their summer internship, collaborate with the project staff to provide reasonable job accommodations and support, and evaluate their performance and growth during the internship.

For each of the two experimental periods, we will recruit 3 cultural and academic mentors, 6 STEM internship mentors, and 6 internship sites to support 30 students on Oʻahu; 2 cultural/academic mentors, 3 STEM internship mentors, and 3 internship sites to support 15 students on Hawaiʻi Island; and 1 cultural and academic mentor, and 2 STEM internship mentors, and 2 internship sites to support 10 students on Molokaʻi. Internship sites include

[redacted]

[redacted] The project will recruit students, ‘ohana, mentors, and internship sites through the project COP, HI DOE and charter schools, higher education collaborators, community organizations, and STEM employers that provided the letters of support.

Intended **student outcomes** include increase in growth mindset, cultural competence (sense of belonging and place), positive attitudes toward learning (sense of responsibility and excellence), and STEM, behavioral characteristics of scientifically talented students, literacy and achievement in STEM, STEM identity development, and intention to enter into postsecondary STEM programs. Intended ‘**ohana outcomes** are improved knowledge in their child's educational needs and supporting strategies, growth mindset, and engagement in their child's college transition and internship planning. Intended **mentor outcomes** include improved growth mindset, attitudes toward the STEM potential of NH students and SWD, and knowledge and skills in mentoring those students. As providing a comprehensive intervention for the students that encompasses ‘ohana, and mentors and internship opportunities, the **long-term outcome** is enhanced local capacity to support NH youths to become contributing community members as well as shining stars in the STEM fields in the future.

Design of the Proposed Project

The project will have a three-phase design. **I-Preparation** (10/2020-7/2021) goals are: (1) develop a five-component Hōkūlani Model by adopting and expanding the PIs' [redacted] workshops, (2) form a COP consisting of cultural, STEM, college transition, and internship experts from O‘ahu, Hawai‘i, and Moloka‘i islands, (3) recruit mentors and internship sites, and (4) recruit and randomly assign student participants for Phase I and II experiments. **II-Experiment** (Phase I: 8/2021-7/2022, Phase II: 8/2022-7/2023) goals are: (5) conduct an experiment, and (6) evaluate the process, progress, and effectiveness. **III-Finalize & Disseminate** (8/2022 to 9/2023) goals are: (7) finalize and disseminate the model, products, and findings and (8) develop a sustainability and scale-up plan. *Table 2 Management Table in Section E shows the goals, objectives, and outputs.*

B(ii) Rationale of the Project

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

C. Quality of Project Services

C(i) Strategies for Ensuring Equal Access and Treatment for Eligible Project Participants

The key personnel of the project are faculty members of the UHM-Center on Disability Studies (CDS), an interdisciplinary unit to promotes diversity through research, education, training, and service, and have years of experiences working with diverse groups of people. The following strategies will be used to ensure equal access and treatment for eligible project participants.

Strategy 1: Develop a culturally appropriate, inclusive STEM talent identification criteria and procedure with a NH STEM COP. One barrier is unfair identification by heavily relying on standardized tests, which are oftentimes biased to culturally, linguistically, and socio-economically diverse students (McBee, 2010; McCoach & Siegle, 2011), thus placing the students in special education, masking their potential in STEM. Teacher nomination may also not be a fair assessment of NH students' potential as the cultural value to be humble may discourage students' active demonstration of individual excellence in a classroom (Fultz et al., 2013). It is particularly true for NH with disabilities given teacher's low expectation and negative implicit attitude toward SWD (Ellins & Porter, 2005; Hornstra et al, 2010). Ellins and Porter's (2005) study found that teachers of core subjects had less positive attitude toward SWD than teachers of non-core subjects and that SWD made the least progress in science where teachers' attitudes were the least positive. To ensure equal access, the project will develop a culturally appropriate, inclusive STEM talent identification method and procedure with the COP that entails considering multiple data sources, examining the comparative importance of the STEM professions, cultural relevance, and fairness of each data source, as well as careful deliberation of inclusiveness.

Strategy 2: Provide transportation and equipment access. NH students may not readily have access to technology for virtual learning or assistive technology. They are also less likely to have reliable transportation to go to a college campus or an internship site, especially for those living in rural areas and SWD needing physical assistance. Thus, the project will provide necessary equipment support (e.g., computer, assistive technology training) and transportation support (e.g., bus, fuel fee, bus riding training).

Strategy 3. Provide options for ʻohana engagement activities and various ways of accessing the information. Many ʻohana may have time constraints or family obligations even if they have the desire to join the workshop. Thus, the project will survey the ʻohana for preferred time, location, and mode of contact, and offer the sessions in person and virtually. Video clips and brief recap of the sessions will be made available via email and on the project website and SNS.

Strategy 4. Provide culture, hands-on, work-based learning opportunities, facilitated by cultural and STEM mentors and supported by ʻohana. To ensure equal access to STEM education, the project will use culturally responsive approach to STEM rather than the typical Western instructional format. This means, the project will include hands on activities, encourage collaboration with cultural peers, create a supportive environment with mentors and ʻohana, as well as provide authentic learning experiences through internship at local STEM sites and engagement with the local community in authentic science activities. These various learning formats will also afford better access to STEM curriculum for SWDs.

C(ii) Research Base of the Project Intervention Model

As illustrated in Figure 1 in Section B(i), the Hōkūlani Model has five components of intervention: Component 1-Academic Enrichment; Component 2-Mentoring; Component 3-College Transition Support; Component 4: Internship; and Component 5: ʻOhana Engagement. This Hōkūlani Model is research based. [redacted]

Component 4: Internship. Internship is beneficial for students to acquire a real-world research experience and be interested in pursuing a career (Scott, 2012). It is an effective strategy to enhance students' learning experiences in STEM fields and shape commitment to a STEM career pathway (Salto et al., 2014), especially for minority students (Pender et al., 2010). For instance, Meyerhoff Scholar Program at the University of Maryland, which pairs each student with a professional in the STEM field and provides summer internships to gain hands-on experience, was recognized by the NSF and the New York Times as a national model for increasing the representation of minorities in science and engineering (Pender et al., 2010). In addition, internship is a robust predictor for SWD's success in workplace by allowing them to access the vocational education and gain employment-related skills (Kendricks & Arment, 2011).

Component 5: 'Ohana Egangement. Close connection with the families and communities has been identified as a crucial protective factor for minority students during the college transition process, as it increases their sense of belonging and perceived sense of cohesion (Hurtado & Carter, 1997; Nuñez, 2011). The extant research also clearly shows that parents' interests, expectations, and occupations shape children's disposition towards STEM (Dabney et al., 2013; Mau & Li, 2018; Raque-Bogdan et al., 2013), especially among the minority families (Crisp & Nora, 2012; Garriott et al., 2014). For example, Dabney and colleagues found that after controlling for gender, race/ethnicity, and parental education, family interests in science channeled through parental occupations, hobbies, and encouragement remain salient as a predictor of their teens' interest in STEM fields. In a national study among ninth graders, Kim and Schneider (2005) found that aligned ambition (i.e., match between parents' expectations and adolescents' educational aspirations) increased the odds of enrolling in a four-year institution versus a two-year institution or not attending college. Importantly, they noted that intergenerational transmission of family social capital manifests itself through the frequency of parents and young adolescents discussing academic issues, the number of college visits made, and advice on college choice, all of which have a positive bearing on teens' college transition. Further, this pattern was more pronounced among ethnic minority students. Together, findings from these studies highlight the need to engage 'ohana actively when preparing for students' STEM pathways, along with educators and community partners who can be advocates for traditionally underserved populations. Thus, the project will modify and expand the PIs' parent workshops, [redacted] to create 11 'ohana engagement activities. The effects of the workshops are summarized in C(iii). [redacted]

[redacted]

[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]

[redacted]	[redacted]
[redacted]	

C(iii)The likely impact of the services on the intended recipients of those services

The possible impacts of the proposed intervention on students are listed in Section B(i), intended outcomes. The likelihood of the project achieving positive impacts on those outcome indicators is evident for the use of sound research-based models and the positive results of the projects, used to build the proposed model. As mentioned in Section Ci and Cii, the components of the Hōkūlani Model reflect up-to-date knowledge from research and effective practice for participants, traditionally underrepresented. Therefore, it can be hypothesized that the proposed intervention will have similar, if not improved, impact on the target participants, and a synergetic impact may be anticipated from the additional components to the previously developed model.

[redacted]

[redacted]

D. Quality of Project Personnel

<u>D(i) Encouragement for Employment of Traditionally Underrepresented Groups</u>

UHM is an equal opportunity employer and minority serving institution. It has a long history of recruiting, training, and advancing persons from traditionally underrepresented ethnic minority groups in education and employment. Following the procedures undertaken at the institution, the project will actively support participation, employment, and advancement of persons from underrepresented groups, particularly NH with and without disabilities, and address barriers to their equitable access or participation (*see GEPA Provision Statement*).

D(ii) Qualifications, including relevant training and experience, of key project personnel

Proposed key personnel are well trained, diverse, highly qualified and have education and experiences relevant to the project as reflected in their curriculum vitae.

[redacted]

[redacted]

[redacted]

[redacted]

E. Management plan

E(i) Adequacy of the Management Plan

Table 2 shows the management plan to achieve the proposed goals and objectives on time and within budget. It also lists responsible personnel, timelines, and outputs/milestones.

Table 2. Management Table (Goals, Objectives, Timeline, Personnel, and Outputs)

[redacted]	[redacted]	
[redacted]		
[redacted]		
[redacted]	[redacted]	[redacted]
[redacted]		
[redacted]	[redacted]	[redacted]
[redacted]		
[redacted]	[redacted]	

[redacted]	[redacted]	[redacted]
[redacted]		
[redacted]		[redacted]
[redacted]		
[redacted]	[redacted]	
[redacted]		
[redacted]	[redacted]	
[redacted]		
[redacted]	[redacted]	
[redacted]		
[redacted]	[redacted]	
[redacted]		
[redacted]	[redacted]	
[redacted]		
[redacted]	[redacted]	

[redacted]		
[redacted]		
[redacted]	[redacted]	[redacted]
[redacted]		
[redacted]		
[redacted]	[redacted]	[redacted]
[redacted]		
[redacted]	[redacted]	[redacted]
[redacted]		
[redacted]	[redacted]	
[redacted]		
[redacted]	[redacted]	
[redacted]		
[redacted]		
[redacted]		
[redacted]		
[redacted]	[redacted]	
[redacted]		
[redacted]		[redacted]

[redacted]		
[redacted]		
[redacted]	[redacted]	[redacted]
[redacted]		
[redacted]	[redacted]	
[redacted]		
[redacted]		
[redacted]		
[redacted]	[redacted]	
[redacted]		
[redacted]	[redacted]	
[redacted]		
[redacted]		
[redacted]	[redacted]	
[redacted]		

[redacted]	[redacted]	
[redacted]		
[redacted]	[redacted]	
[redacted]		
[redacted]	[redacted]	
[redacted]		
[redacted]		
[redacted]		
[redacted]	[redacted]	[redacted]
[redacted]		
[redacted]	[redacted]	[redacted]
[redacted]		
[redacted]	[redacted]	
[redacted]		

E(ii) Adequacy of Mechanisms for Ensuring High-quality Products and Services

Four elements are considered for ensuring the capacity to produce quality products and services.

[redacted]

[redacted]

F. Project Evaluation

[redacted]

[redacted]

[redacted]