

# **Dialogues with Our Future Ancestors**

**An Inquiry into the Well-Being of MA'O and Kauhale  
Youth Leadership Training Program Participants  
2003–2020**



**JUNE 2021**

**Nē huli ka lima i luna, pōloli ka 'ōpu.  
Nē huli ka lima i lalo, piha ka 'ōpu.**

*When your hands are turned up, you will be hungry.  
When your hands are turned down to the soil, you will be full.*

*- Kupuna Katherine Maunakea*

**A'ōhe pau ka 'ike i ka hālau ho'okahi.**

*Not all knowledge is contained in one school.*

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This report and related materials, including briefs by subject area, are housed at  
<http://www.maoorganicfarms.org/future-ancestor>.

## SUMMARY

Since its founding in 2001 by Wai‘anae community members, MA‘O Organic Farms (MA‘O) has witnessed that investments in the connection of youth to land and in the empowerment of youth leadership generate health, sustainability, and resilience with and for the community. In 2020 MA‘O partnered with a team of evaluation experts and academic partners to develop and deploy a multi-faceted ‘alumni survey’ with the intention of thoroughly and systematically analyzing the effects of its core Youth Leadership Training (YLT) college internship program on participants, and by extension on the community.

MA‘O’s theory of change posits that a social enterprise can mimic the strengths of an ‘ohana (family) by providing material, intellectual, and emotional support, educational resources, and workforce training. MA‘O’s YLT program is designed to help youth find their purpose, connect with their culture and history, develop knowledge and skills, grow and mobilize personal and professional networks and partners, and pursue educational and workforce opportunities that lead them, their families, and the community toward cultural, social, economic, and spiritual resilience. YLT interns work part time in the MA‘O or Searider Productions social enterprise; in return they receive monthly stipend and tuition waivers for University of Hawai‘i Leeward Community College, and comprehensive educational and social wrap-around services. The YLT is intended to improve youth outcomes in the areas of education attainment, socioeconomic status, holistic health, and community connectedness. Ultimately, this is intended to grow **future ancestors** dedicated to intergenerational leadership, rooted to place, and committed to their community.

The alumni survey project was initiated from a space of wonder and curiosity, with the goal of investigating the hypotheses embedded in MA‘O’s theory of change regarding the immediate and cascading individual and communal changes that stem from educating and empowering youth. It was also intended to deepen and formalize MA‘O’s learning philosophy and practices; to build a model for future organizational evaluation and inquiries; and to yield insights to inform the ongoing refinement and evolution of the program, associated partnerships, and related policy.

The Dialogues With Our Future Ancestors (The Dialogues) were grounded in MA‘O’s long-held practice of inquiry, reflection, and refinement: **the feedback loop for our kuleana to our future ancestors**. It was undertaken as a community-based participatory research (CBPR) project, through which MA‘O staff, evaluation experts, and academic researchers contributed their unique expertise and experience. This application of the practices of makawalu (seeing through many perspectives; literally ‘eight eyes’) and kilo (direct observation, generally as a practitioner) affirmed much of MA‘O’s experiential knowledge, while productively complicating some standing assumptions, and inviting new questions and perspectives.

The inquiry yielded a rich body of data from 62 questionnaire respondents (20% of the YLT alumni community), direct personal narratives from 21 one-on-one interviews, biometric data from 25 participants, and ‘ohana dialogue focus group discussions with 12 YLT alumni.

**Analysis of this abundance of data and narratives affirms the core tenets of the YLT theory of change: youth can be empowered to grow into powerful agents of change, who create tangible examples of the possible for each other, their families, and their communities, thereby laying the foundation for intergenerational transformational change.**

In sum, the majority of alumni reported that through the YLT they improved their capacity, agency, and well-being; accessed helpful resources; developed workplace competencies and skills; increased their appreciation for ‘āina and social and cultural narratives; deepened their interest in community change; and grew in their

valuation of college, and 'āina-based and life-long learning. They shared accounts of transformative experiences through which they developed their purpose and self-determination, and highlighted the critical role of strengthening interpersonal relationships. Alumni also reported that they continue to apply the hard skills, values, and community-orientation they developed while in the YLT in their current professional and personal lives. They articulated a nuanced and lived experience of leadership and the pursuit of meaningful careers, as well as community connectedness and engagement. Finally, the alumni also demonstrated measurable gains in education attainment, certain areas of holistic health, and food security and food sovereignty, as compared to relevant peer groups.

The affirming statements of agency, capacity, and positive outcomes shared by many alumni were also accompanied by indicators of the challenges still faced by many individuals. This was evident, for example, in the relatively low wages earned by alumni which may reflect a lack of financial stability, the experience of food insecurity shared by a third of alumni, the loss of employment and reductions in livelihood during the pandemic, the persistent incidence of high risk chronic illnesses such as diabetes, and the statements of loss of community connection by many of those who no longer live in Wai'anae.

Several overarching themes emerged from the analysis:

- There is a complex interplay between youth's experience in the YLT program and their structural, environmental, and familial context, which can impinge upon and/or bolster individual experiences and outcomes.
- YLT alumni have tremendous hope and aspirations for the well-being of their current and future 'ohana, often grounded in an articulation of cultural and community-centric values and a commitment to carrying forward a strong work ethic. Most resonant were the many affirmations of the MA'O philosophy of "love, respect, and the willingness to work."
- YLT youth exert an influence on their family members, thus amplifying the impact of the YLT program across social networks.
- MA'O effectively serves as an extension of 'ohana for youth participants, facilitating the generational transmission of knowledge, skills, and capacity.
- Pilina (relationships) to one another, to family, and to 'āina are vital to helping youth to flourish.

The Dialogues have generated a snapshot of the current status of a substantial number of the YLT alumni, and insight into their reflections on how the YLT experience served them at the time and what it has meant to them since. This lays the groundwork for ongoing engagement and dialogue, through which MA'O is committed to pursuing the complications, confusions, wonderings, and further inquiries that emerged from this initial effort. This will likely include a longitudinal and/or periodic ongoing inquiry, to be designed through MA'O's current (2021) evaluation strategy work.

With this knowledge in hand, MA'O is now returning this learning to the system to evolve and refine YLT programming. The organization is also sharing their insights with education, employment, community, and funding partners and policy makers to elevate the collective capacity to grow the health and well-being of the youth, their families, and community. Finally, MA'O is committed to deepening pilina with and among the alumni community beyond this report. The organization looks forward to providing opportunities for the alumni to weave a network of mutual support and learning, and to apply the learning and values they began cultivating in the YLT in their current and future careers and personal lives.

## INTRODUCTION

In 2001, community members established the Wai‘anae Community Re-Development Corporation (WCRC) and created the social enterprise of MA‘O Organic Farms (MA‘O). The organization’s mission is to build a future of mā‘ona, of plenty, by connecting youth and land through the daily practice of aloha ‘āina, empowering youth to succeed in college and secure sustaining careers, while growing organic produce that yields individual and communal vitality.

MA‘O’s theory of change posits that a social enterprise can mimic the strengths of an ‘ohana (family); MA‘O is an ‘ohana that provides material, intellectual, and emotional support, educational resources, and workforce training. The organization’s youth programming is designed to help youth find their purpose, connect with their culture and history, develop knowledge and skills, and grow and mobilize personal and professional networks and partners. Over the past 20 years, MA‘O has scaled and refined this culturally-rooted approach, developing innovative strategies to grow young leaders in the cultural and socio-economic context of Wai‘anae moku (region). To date, MA‘O has served over 380 youth through its core internship program, the Youth Leadership Training program (YLT), of whom 315 were eligible to have completed the YLT and their associate degree at the time of this study.<sup>1</sup> Throughout the study and this report, all 315 past YLT participants are referred to as “alumni” whether they left the program through graduation or attrition.

MA‘O sees the YLT youth – and youth in Wai‘anae moku more broadly – as our *future ancestors*. They represent the center of the continuum between our mo‘okū‘auhau (genealogy) and our mo‘olelo (unfolding story), that which connects our past and future. We believe that the youth are powerful agents of change. As they chart their own paths they are creating tangible examples of the possible, influencing their friends and family, and laying the foundation for intergenerational transformational change.

### Mo‘okū‘auhau and Evolution of the Alumni Study

Historically, MA‘O has not formally tracked youth outcomes after interns’ departure from the YLT, with the exception of college degrees received post-YLT. The organization has, however, remained in contact with many former interns as they continue their journeys beyond MA‘O, and has stayed abreast of their academic, professional, and personal triumphs and challenges. These individuals’ experiences and insights have informed MA‘O’s theory of change and programmatic evolution over the years. Twenty years into our practice, we have witnessed that when we invest in the connection of youth to land and in the empowerment of youth leadership, we generate health, sustainability, and resilience with and for the community.

In 2020, MA‘O convened a team of evaluation experts and academic partners (see project team details in Appendix A) to co-articulate a plan to more thoroughly and systematically understand the effects that YLT programming has on participants, and by extension on the community. Our effort was inspired by the collaborative learning journey we began with the Maui Ola Study (2017-ongoing), through which we are partnering with researchers at the University of Hawai‘i and Hawai‘i Integrated Analytics (HI‘A) to explore the longitudinal social/health impacts on YLT youth over the course of their internship. Preliminary results of the Maui Ola study affirmed that within a year on the farm, YLT participants experienced statistically significant improvements to their physical health, particularly a reduction in their risk of contracting Type-2 diabetes, and that they exert an influence on the health behaviors of individuals within their social networks.<sup>2</sup> These results, in turn, raised additional questions:

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<sup>1</sup> At the time of the study, YLT cohorts 1-12.5 had concluded their experience at MA‘O, cohort 13 was largely but not fully wrapped up, and cohorts 14-15.5 were still active in the program.

<sup>2</sup> Read more about the Maui Ola study here: <https://www.maoorganicfarms.org/mauli-ola-study>.

- *do the positive health and behavioral impacts of the YLT experience persist after youth leave the program?*
- *if so, how does this manifest in their lives, families, and communities?*

These wonderings formed the basis for the alumni survey project underlying this report, Dialogues With Our Future Ancestors: An Inquiry into the Well-Being of MA’O and Kauhale Youth Leadership Training Program Participants, 2003-2020. Given the YLT program’s focus on outcomes for predominantly native Hawaiian youth, the research project was partially funded by a grant from The Queen’s Health Systems, Native Hawaiian Health.<sup>3</sup>

We pursued the project using the tenets of **community-based participatory research (CBPR)**, as embodied in our ongoing Maui Ola study work. The National Institute of Health (NIH) National Institute on Minority Health and Health Disparities (NIMHD) articulates the community-based participatory research framework as:

*“collaborative interventions that involve scientific researchers and community members to address diseases and conditions disproportionately affecting health disparity populations. **Recognizing the strength of each partner, scientific researchers across multiple disciplines and community members collaborate on all aspects of the project, which may include a needs assessment, planning, research intervention design, implementation, evaluation, and dissemination of community-level interventions. The community is involved in the CBPR program as an equal partner with the scientists. This helps ensure that interventions created are responsive to the community’s needs.**”<sup>4</sup> (emphasis added)*

We appreciate that CBPR allows for the equitable engagement of community-based practitioners, academic researchers, and others in all aspects of the research process, and that it draws upon the unique expertise and experience of all partners in the design, execution, and ownership of the project. We aspire to the aims of CBPR, which include not only increasing knowledge, but also applying the resulting insight to the benefit of community through effective policy and social change efforts.

From our initial health-centric focus, we broadened our aspirations for the Dialogues project, as we saw that a deep and comprehensive evaluation of the YLT program and youth outcomes could powerfully inform the ongoing refinement and evolution of the program and our partnerships. We also seized the opportunity to investigate the hypotheses regarding the immediate and cascading individual and communal changes that stem from educating and empowering youth, which are embedded in MA’O’s theory of change.

The project thus comprises both a summative purpose (determining program efficacy), a formative purpose (to inform program development and improvement), and a developmental evaluation purpose (to refine interventions as needed). Our approach encompasses a goals-based lens to discover whether the YLT program is meeting its goals and objectives, and a process-based lens to understand whether the program is effectively improving the target area (youth outcomes in Wai’anae).<sup>5</sup>

This has been an exploratory undertaking throughout; we initiated the project from a space of wonder and curiosity, with an intention to build a robust, holistic, and systemic inquiry. Our goal is to inform MA’O’s ongoing learning culture, and to build a model for future organizational evaluation, research, and inquiry. In this vein, the study is proving foundational to our current and ongoing work to develop an evaluation strategy that formalizes and deepens MA’O’s learning philosophy and practices, in service to youth outcomes.

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<sup>3</sup> <https://www.queens.org/about-us/native-hawaiian-health-qhs>

<sup>4</sup> <https://www.nimhd.nih.gov/programs/extramural/community-based-participatory.html> (Accessed April 18, 2021)

<sup>5</sup> Morelli, Paula T. and Peter Mataira. “Indigenizing Evaluation Research: A Long-Awaited Paradigm Shift.” *Journal of Indigenous Voices in Social Work*. Volume 1, Issue 2. December 2010



This robust organizational learning process is particularly critical now, when MA'O is in the midst of a ten-year organizational scaling effort (2018-27). Through this expansion, entitled MA'O Mā'ona,<sup>6</sup> youth participation in MA'O's 'auwai (college-to-career pathway) is projected to grow four-fold. Reinforcement of programmatic feedback loops is critical to ensuring that while we scale the 'auwai, we also continue to improve post-secondary graduation rates, deepen the quality of the youth experience within the 'auwai, and attend to youth outcomes after interns leave MA'O's care.

To this end, in Spring 2020 we (MA'O staff, along with our evaluation experts and academic partners) co-created a mechanism to learn from the alumni's own insights about their YLT experience, as well as their socioeconomic, health, education, and community connectedness experiences and outcomes since leaving the program. Together we developed and deployed a multi-faceted survey in the hopes of yielding insights through personal narratives, broad data gathering, and rigorous analysis. The survey comprised four elements: two preliminary focus groups; a questionnaire to assess YLT program outcomes and participants' current well-being; one-on-one interviews to elicit participants' insights about their own lived experience; and biometric data/biospecimen sampling to assess for the persistence of program-related health outcomes. Alumni feedback gathered through the initial 'ohana dialogue focus groups was used to refine the survey contents and process before we deployed it to the whole alumni community.

This project benefited from the professional and subject matter expertise of our evaluation and academic partners, and is grounded in the lived experience and expertise of the MA'O practitioners. By working in partnership, rather than outsourcing this evaluation work, the MA'O staff committed to a challenging organizational learning experience. By internalizing this work we also ran the risk of introducing organizational bias into our analysis, which we took several steps to mitigate. Most importantly, alumni were able to share their personal data and perspectives confidentially; respondents were assured that MA'O staff would only review aggregated and de-identified data and comments. In addition, all initial quantitative and qualitative data analysis was executed by our external partners, the following sense-making process was conducted in partnership, and conclusions were reviewed by the whole project team. Responsibility for the report itself rests with MA'O.

Finally, we situated this project as part of a broader effort to support, maintain, and deepen pilina (relationships and connectivity) between MA'O and the YLT alumni, and within the alumni community itself. On this front, our goal is to build upon and deepen the connections developed amongst YLT interns while they were on the farm, providing opportunities for members of all cohorts to continue weaving a network of mutual support and learning, and to apply the learning and values they cultivated in the YLT in their current and future careers and personal lives.

The purpose of the following report is to describe the alumni study project, share its results, and document the implications for MA'O's program evolution and ongoing engagement with the YLT alumni. Learning gleaned from the report will also serve as the basis for future discussion with peer organizations, foundations, and policy makers.

## **YLT Program Background**

The YLT program encompasses two program tracks housed in separate educational and enterprise settings: MA'O Organic Farms (an organic farm and home to the majority of YLT interns, referred to as "MA'O") and Searider Productions (a digital media initiative at Wai'anae School, referred to as "DMED"). Together, these two programs are called the Kauhale. The Kauhale YLT interns from both MA'O and DMED receive comprehensive

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<sup>6</sup> MA'O Mā'ona refers to the organization's 10-year scaling effort (2018-2027), which is grounded in the expansion of the farm footprint from 24 to 281 acres (2018-19) and the development of a state-of-the-art post-harvest processing facility (2021-22). Through this scaling, MA'O projects growing youth programs four-fold and food production ten-fold, while creating dozens of sustaining jobs, developing an agricultural housing project, and forging a sustainable organizational future through expanded earned revenue.

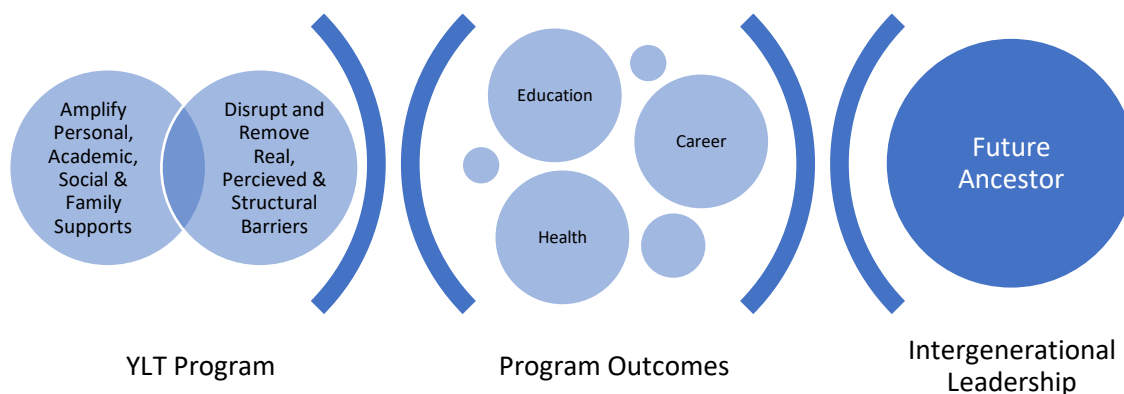
educational and social wrap-around services, which include counseling, academic advising, and referrals to other social services. They also receive financial support in the form of a monthly stipend and tuition waivers for University of Hawai'i, Leeward Community College (LCC). All Kauhale YLT interns in both the MA'O and DMED program tracks participate in a ramp-up program at MA'O Organic Farms and receive ongoing programmatic support from MA'O education staff. Interns from both MA'O and DMED participated in this study.

**YLT Theory of Change**

While the YLT theory of change has evolved over the past 20 years, it has retained a core focus on connecting youth and land through the daily practice of aloha 'āina, and empowering youth to succeed in college and secure sustaining careers, while growing organic produce that yields individual and communal vitality. Most vitally, MA'O's learning environment is 'āina-based;<sup>7</sup> that is, the learning offered at MA'O is situated on and derived from the land where it occurs. In the case of DMED participants, the YLT focuses on connecting youth to their community through digital storytelling. Here we reference MA'O's current theory of change; see prior iterations of the theory of change in Appendix B).

**Our theory of change** posits that a social enterprise can mimic the strengths of an 'ohana (family); the MA'O 'ohana is an extension of the 'ohana in community. We work with families and academic partners as co-parent, co-educator, and co-employer to empower Wai'anae youth, especially those of native Hawaiian descent, to grow in their leadership and agency and to pursue educational and workforce opportunities that lead them toward cultural, social, economic, and spiritual resilience. Specifically, the 'auwai programs engage 'ōpio (youth) in the rigor of academic pursuit and workplace excellence by providing educational opportunities, resources, and support, and workforce development and training. Our logic model is designed to help youth find their purpose, connect with their culture and history, develop knowledge and skills, grow and mobilize networks and partners, and strive toward productive personal and professional goals and aspirations. In practice, youth invest in themselves by working on the farm while matriculating through an edu-preneurial 'auwai (college-to-career pathway). As an 'āina-based learning environment in which outcomes matter, youth at MA'O connect to their place as a matter of identity, self-esteem, pride, relationship, and connection to both individual and collective purpose and context.

Figure A YLT Theory of Change



In sum, the YLT program is designed to foster youth leadership capacity in an environment where youth receive amplified support and real, perceived, or institutional barriers are disrupted or removed. The YLT is intended to improve youth outcomes in the areas of education, careers, wages, leadership, holistic health, food security,

<sup>7</sup> 'Āina-based education is about deepening our kinship with the 'āina so people, communities, and lands thrive. <https://www.ksbe.edu/imua/videogallery/aina-based-education/> (accessed April 22, 2021)

food sovereignty, community connectedness, and civic engagement. Together this yields future ancestors committed to intergenerational leadership. Figure A presents a graphic representation of this theory of change, while Figure B depicts how the YLT program is embedded in MA'O's structure as a social enterprise, wherein youth are engaged in the activity of organic farming while receiving education support and workforce training, leading to outcomes in the areas of youth education, individual and communal health, food production, 'āina restoration, and job creation, which culminate in community empowerment.

Figure B Embedding the YLT in the Social Enterprise of MA'O Organic Farms



**Purpose of the YLT Program**

The purpose of the YLT program is to empower youth with the skills, attitudes, and knowledge required for matriculation to and graduation from college, while they participate in community-based social entrepreneurship, and practice aloha 'āina (stewardship of the land) and care for the community. The programmatic approach used in the YLT includes:

- acculturating students to college attainment and lifelong learning
- maximizing peer-to-peer engagement and support
- balancing the provision of support with the giving of kuleana (work that requires responsibility)
- empowering youth to generate action-oriented goals
- providing individualized mentorship to participants; and
- reconnecting young people to Hawaiian culture and heritage.

## ***YLT Program Structure***

The YLT internship is structured as follows. Note in particular the overlapping two-year cohort structure: an intern starts as a novice, looking up to the ‘elder’ interns for guidance, expertise, and proof of what is possible, after which they in turn progress into the elder role and take on kuleana for the success of those who follow.

- Cohort-based, with points of entry at either the start of the Fall or Spring semester
- Requires a 2–year mutual obligation between youth and the organization (4-5 academic semesters)
- Provides full tuition coverage to UH LCC
- Provides part-time work with a monthly stipend
- The elements of the internship include:
  - Wrap-around services, including counseling and academic support
  - Peer-to-peer engagement and near-peer mentoring
  - Leadership training, mentorship, and experience
  - Work at MA’O or DMED
  - Skills training in organic farming (MA’O) or digital media (DMED)
  - Community service through participation in Farmers Markets or GIVE Days

## ***Anticipated YLT Program Outcomes***

The YLT internship is based on pursuing four central program components: post-secondary education support, economic and professional empowerment, holistic well-being, and community engagement. The outcomes expected from participation in the YLT stemming from these program components are: improved *education attainment, socioeconomic status, health and well-being, and community connectedness*. Here we review the critical YLT program components and anticipated outcomes. We note that in Hawai’i, as elsewhere, youth outcomes are greatly impacted by community of residence. The complicated question of how the structural, geographic, and relational realities of Wai’anae influence the alumni outcomes is noted and explored in this report. We also note that the COVID-19 pandemic was in progress when the study was conducted and so we also consider the pandemic’s effects on well-being and employment, as relevant.

### ***Education Attainment***

In the YLT learning is framed as a kuleana – a responsibility that is simultaneously a right and a privilege – as well as a value, an asset, and a culture. Teaching is not confined to the classroom and is connected to practical applications and community implications. Youth quickly become teachers in their own right, fostered by the near-peer mentorship embedded in the internship structure. The YLT is designed to help youth value formal and informal learning, and to complete their post-secondary studies. Participants receive academic counseling conducted in partnership with Leeward Community College, and develop social bonds within and across cohorts. It is believed these factors will lead participants to:

- 1) Value education, life-long learning, and ‘āina based learning
- 2) Attain degrees at a higher rate than their peers
- 3) Have further education aspirations
- 4) Inspire others to attend college

### *Socioeconomic Status*

Given MA’O’s commitment to fostering community-based economic development, and to empowering and educating youth, we expect that the YLT alumni will experience improved socioeconomic outcomes that will extend to their current and future families, and the community. Through the YLT program participants develop agency, self-determination, and confidence, build skills and knowledge, and grow personal and professional networks. They also attain post-secondary degrees and develop workplace competencies that are expected to lead to greater professional opportunities and mobility. As a result, we anticipate that YLT alumni will access meaningful and remunerative work in which they can exercise leadership. We also selected several additional socioeconomic indicators (use of public benefits and incarceration) as part of our first attempt to more concretely understand the cascading impacts of investing in youth education and empowerment. These indicators are potentially relevant to public policy discussions about avoiding societal costs through investments in youth. It is therefore anticipated that YLT graduates will:

- 1) Develop workplace competencies and skills
- 2) Access sustaining careers and meaningful work
- 3) Engage in leadership
- 4) Have increased wages
- 5) Have increased financial literacy
- 6) Rely less on public benefits
- 7) Have reduced incarceration rates
- 8) Have improved ‘ohana well-being

### *Health & Well-being*

By *health and well-being* MA’O means the well-being of body, mind, and spirit. The OLA health pillar at MA’O is grounded in the provision of three inter-related resources: 1) ‘*ohana* (family) – the source of fundamental resources for optimum social and economic well-being; 2) *Iōkahi* – the origin of the values base for optimum spiritual, cultural, and emotional well-being; and 3) ‘*āina* – natural resources that yield physical sustenance, self-sufficiency, and well-being. YLT participants are supported through curriculum and mentorship to develop agency vis-à-vis their personal and family’s health, and to build self-awareness and develop practices that improve their emotional and mental well-being. The MA’O program provides an environment where fresh produce is celebrated, prepared and eaten together. Preliminary results from the Maui Ola Study (2017-ongoing) indicated that being on the farm for a year or less resulted in statistically significant improvements to YLT participants’ health (as measured through A1C<sup>8</sup> results). Because personal and family health are important aspects of the YLT curriculum, it is anticipated that YLT participants will experience:

- 1) Holistic well-being
- 2) Improved mental health
- 3) Good health-related behaviors
- 4) Improved diet and nutrition
- 5) Lower diabetes risk
- 6) ‘*Āina* connection and food sovereignty
- 7) Improved food security

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<sup>8</sup> An A1C test is a blood test that gives average blood sugar level for a recent two or three-month period.

### *Community Connectedness*

The YLT program is grounded in a communally-oriented and culturally-rooted approach to youth empowerment and mentorship. It is designed to help youth develop a sense of purpose, connect with their culture, and to build and mobilize networks. Program curriculum is intended to empower youth to connect with their culture and history, in particular with native Hawaiian culture and the history of Waiʻanae moku. The experience is also intended to foster a commitment to the well-being of the broader community. It is believed, then, that YLT participants will:

- 1) Value moʻolelo – social and cultural narratives
- 2) Demonstrate cultural connections
- 3) Hold high aspirations for community
- 4) Practice community service and community engagement
- 5) Engage civically
- 6) Be culturally rooted

## STUDY METHODOLOGY

Conducted in the fall of 2020, the MA'O Alumni Study comprised four components: two preliminary focus groups of five to seven alumni per session, an online questionnaire with 62 respondents, one-one-one interviews with 21 of these individuals, and the collection of biometric data and biospecimen samples from a subset of 25 alumni. The project started with a concerted effort to reconnect with as many alumni as possible, using social media and outreach through existing relationships and networks. Though we aspired to hear from every past YLT participant, we had lost touch with many alumni over the years. The effort to reconnect was substantially hampered by the limitations imposed by the COVID-19 pandemic. For example, we had intended to invite all alumni to an in-person event at MA'O to strengthen and re-establish pilina and trust in the spring/summer of 2020, ahead of inviting their participation in the study, but in person gatherings were prohibited by the State of Hawai'i for the duration of the project launch (March-October). A total of **100** alumni, or **32%** of the total 315 alumni, provided their current contact information; these individuals made up the pool of potential study participants.

Prior to deploying the survey instruments, we identified seven key attributes as critical to the ensuing analysis. These included: cohort, gender, ethnicity, duration in the YLT program, successful completion of an associate degree, YLT program track, and post-YLT participation in a further MA'O program or leadership position.

- 1) Cohorts were aggregated into three groups: C1-5, C6-11.5, and C12+. This breakdown aligns with the YLT evolution over the years (see Appendix C). Within each group interns received a similar set of programming, had access to similar resources, and participated when MA'O was at a particular scale. The cohort group also serves as a proxy for age, given that the vast majority of interns are between the age of 17-19 when they enter the two-year program.
- 2) Gender was defined as male, female, or other.
- 3) Ethnicity in this study is defined simply as native Hawaiian or not, as MA'O is in service to a majority native Hawaiian community.
- 4) Duration of participation in the YLT program is broken down into three groups: 0-1 semesters, 2-3 semesters, and 4+ semesters.
- 5) Associate degree attainment is defined as yes or no, regardless of when the associate degree was attained (during or after active participation in the YLT).
- 6) Program track is either MA'O (on farm) or DMED (digital media, at Wai'anae Seariders Program).
- 7) Participation in a post-YLT program or leadership position MA'O is defined as yes or no. A 'yes' includes participation in the Ho'owaiwai Youth Leadership (HYLT) internship bridging into a four-year degree program, the professional Farm Apprenticeship program (previously called a Co-Managership position), or a staff position. MA'O has more purposefully retained alumni, particularly into the HYLT program, since Cohort 12, which coincides with MA'O's physical and programmatic expansion, underway since 2018.

Table 1 below identifies the total participant count in each of the survey's four components (focus groups, questionnaire, interviews, and biospecimen samples from which we collected biometric data). The constituent makeup of these subgroups is compared against the total population of YLT alumni using the seven key attributes in Table 2. This comparison helps to determine how un/representative each group is of the total population, and therefore how much their responses can be generalized across the total alumni population.

Table 1 Number of YLT Alumni In Survey Groups, By Attribute

Key Attribute	Focus group N = 12	Interview N = 21	Biometrics N = 25	Alumni Survey N = 62	Population N = 315
Cohort Group					
1-5	5	6	8	22	76
6-11.5	3	6	6	25	210
12+	4	9	11	15	29
Gender					
Female	8	14	14	38	175
Male	4	7	10	21	139
Other	0	0	1	1	1
Unknown	0	0	0	2	0
Program Track					
DMED	1	2	0	5	77
MAO	11	19	25	57	238
Native Hawaiian					
NH	8	13	16	49	255
Non-NH	4	8	9	13	60
Associate Degree					
AA or AS graduate	9	13	15	33	126
Non AA or AS graduate	3	8	10	29	189
Number of Semesters in YLT					
0 or 1	1	4	2	11	92
2 or 3	2	5	5	12	97
More than 4	9	12	18	39	126
Post-YLT Role at MA'O					
Not participated	5	12	8	32	269
Participated	7	9	17	30	46
<i>*Only Population column excludes Cohort 13 and up, as several members of C13 and up who had already left the program were invited to participate in the survey as alumni.</i>					



Table 2 Comparison of Survey Group Attributes vs. Total Alumni Population

Key Attribute	Focus group N = 12	Interview N = 21	Biometrics N = 25	Alumni survey N = 62	Population N = 315
Cohort Group					
1-5	42%	29%	32%	35%	24%
6-11.5	25%	29%	24%	40%	67%
12+	33%	43%	44%	24%	9%
Gender					
Female	67%	67%	56%	63%	56%
Male	33%	33%	40%	35%	44%
Other	0%	0%	4%	2%	0%
Unknown	0	0	0	2	0
Program Track					
DMED	8%	10%	0%	8%	24%
MAO	92%	90%	100%	92%	76%
Native Hawaiian					
NH	67%	62%	64%	79%	81%
Non-NH	33%	38%	36%	21%	19%
Associate Degree					
AA or AS graduate	75%	62%	60%	53%	40%
Non AA or AS graduate	25%	38%	40%	47%	60%
Number of Semesters in YLT					
0 or 1	8%	19%	8%	18%	29%
2 or 3	17%	24%	20%	19%	31%
More than 4	75%	57%	72%	63%	40%
Post-YLT Role at MA'O					
Not participated	42%	57%	32%	52%	85%
Participated	58%	43%	68%	48%	15%
<i>*Only Population column excludes Cohort 13 and up, as several members of C13 and up who had already left the program were invited to participate in the survey as alumni.</i>					

The **total YLT alumni population (n=315)** is made up of YLT participants in Cohorts 1-12.5, regardless of how long they stayed in the program and whether they received their associate degree. The cut off at Cohort 12.5 reflects that some participants in Cohorts 13 and up were still active in the program at the time of the project, and as a group they could not yet be considered to have completed the YLT. However, several members of C13 and up who had already left the program (whether by graduating with their associate degree or because they left early) were invited to participate in the survey as alumni.

Two **focus groups (n=12)** were engaged early in the project to provide feedback on the beta questionnaire and interview questions, along with suggestions for securing widespread participation.

The **interviewees (n=21)** are those who did one-on-one interviews in addition to completing the online survey.

The **alumni questionnaire respondents (n=62)** includes all those who provided a complete response to the online survey questionnaire. This represents **20%** of the total alumni population.

The **biometric respondents (n=25)** are respondents who provided blood for an A1C test, and a smaller subset thereof (n=17) who provided a stool sample for microbiome analysis.

### **‘Ohana Dialogues - Focus Groups**

Prior to deploying the survey instruments to the full alumni community, two ‘ohana dialogues (focus groups) were conducted with YLT alumni via two-hour recorded Zoom sessions. Through the dialogues we gathered feedback on the beta questionnaire and interview questions to determine if any refinements were required to ensure the survey’s clarity and efficacy. We also solicited alumni guidance about how to secure their peers’ participation. Finally, the dialogues were used to learn about participants’ experience in the YLT and their own thoughts regarding its influence and impact on their lives since; quotes from the dialogues are included in the relevant areas of the results section below.

The ‘ohana dialogues were grounded in two foundational principles:

- Ho‘omohala - the dialogues were established as an intentional process of sharing and learning. Participants were invited into an inclusive, open, supported, and safe space that is “becoming” (an emergent process of co-creation).
- ‘Imi Na‘auao - the dialogues were articulated as an intentional process to seek wisdom; participants were identified as part of a process that generates solutions for youth, families, and community.

To protect against organizational bias, a random selection process was used to identify 20 individuals from amongst the 100 current contacts to invite to participate in the focus groups; 12 of these agreed to participate. Fortunately, the random process yielded at least one participant representative of each facet of all seven key attributes (noted above p. 15), though the group did not accurately reflect the proportional makeup of the total population. Those who left the program after just 0-1 semesters, who did not successfully attain their associate degree, or participated in the DMED track were all underrepresented, though there was at least one person representing each of the categories in the focus group dialogues. Dialogue participants received a \$50 incentive in appreciation for their time.

Two separate groups were convened in order to ensure each participant had an opportunity to speak, while leaving room for robust discussion, and to mitigate for any potential personality idiosyncrasies that might affect the dynamics within a single group. Prior to the event, participants completed the beta questionnaire and reviewed the draft interview questions, and were asked to take note of any questions or concerns. The dialogues were opened by MA‘O Executive Director Kukui Maunakea-Forth and Communications & Special Projects Coordinator Chelsie Onaga (also a YLT alumna, C11.5). MA‘O staff then left the Zoom session and the dialogues themselves were led by MA‘O’s academic partners to avoid the possible chilling effect on the free expression of ideas, especially negative sentiments, of having MA‘O staff members present. Lasting a total of two hours per session, the dialogues focused on survey content and process, the biometrics process, recruitment, interview questions and process, and substantive discussion about the YLT experience itself. (See Focus Group questions in Appendix D.)

Feedback shared during the dialogues was enthusiastically supportive of the intent behind administering the survey and interviews. Enthusiasm about the biometric aspect of the project varied. Constructive feedback was

used to adjust the wording of several existing questions and add several new questions in preparation for deploying the survey and interviews to the full alumni community. For example, survey wording was changed to make it clear if the survey was asking about respondents' community in the present or past tense, since a few of the focus group participants expressed belonging to multiple communities or not identifying with one in the present. Participants also pointed out where there appeared to be redundancy and additional areas lacking clarity as to whether they should respond to how YLT affected them during the program or since. They also suggested that the survey should ask where respondents find meaning in life rather than assume that they do so through employment. The questions on employment status were adjusted so that there was a question on where they find meaning in life before asking about meaningful work. Finally, participants noted that recruitment for surveys and interviews should omit the word alumni so that all felt encouraged to participate regardless if they finished the program.

Overall, the facilitators noted that respondents were eager to share their mana'o (thoughts and insights) and they suggested providing more of an opportunity to do so on the surveys. This led to the addition of several open-ended questions to the questionnaire to provide all respondents the opportunity to share additional details and to explain their responses to the close-ended questions, as well as to express any dissatisfaction with the program. This resulted in the addition of one open-ended question at the end of each survey section.

The primary suggestion for the interviews that stemmed from the focus groups was to simplify the question about food sovereignty. This was accommodated by breaking up the inquiry into several distinct questions about particular aspects of food sovereignty, including access and cost. The suggestions for the survey noted above were also incorporated into the interview questions – including the wording regarding meaningful work, and clarification of the tense used when asking about YLT impact and community identification.

Focus group discussion regarding the biometrics process revealed that participants thought the compensation for participation in this aspect of the study should be increased in order to drive more participation. We accordingly increased the biospecimen sample compensation from \$25 to \$50 per person. The participants also expressed their discomfort with producing samples, their fear that they would make errors, and a general sense that the effort felt cumbersome. However, those who expressed their willingness stated that they would do so to support MA'O's programming. Those who had already participated in the Maui Ola study in particular expressed comfort with the process, as they knew what was expected. Several participants noted that stress and "quarantine weight" should be accounted for in the biometric portion of the study. One helpful suggestion that we pursued was to create a video to demonstrate the relationship between individual and community health and biometrics, to increase the alumni's motivation to contribute biospecimen samples.

The final portion of the focus groups was devoted to questions about participants' YLT experience, which they had also referenced and discussed throughout the session. Commonly discussed YLT impacts included: applying growing knowledge to their gardens, the ability to connect to others through a sense of community, the interpersonal skills and work ethic they gained, and becoming more effective communicators.

Many participants also explained that they had attended the focus groups in order to connect with their peers, and they were enthusiastic about the possibility of MA'O hosting a reunion so that alumni can connect with each other.

The dialogue participants' initial responses to the beta questionnaire were recorded and included in the total responses (n=62), along with their responses to a subsequent short supplemental questionnaire comprising the newly added items.

## Questionnaire

We developed items for the questionnaire to solicit data relevant to alumni outcomes in the core program component areas of *education attainment*, *socioeconomic status*, *health and well-being*, and *community connectedness*, as well as the YLT experience itself. The full Questionnaire is available on the MA'O website.<sup>9</sup>

The individual questionnaire items were developed in collaboration with the project team subject matter experts. We also integrated existing questions from two prior studies: the previously discussed Maui Ola health inquiry, and Imi Na'auao, a survey instrument for current YLT participants that we developed in 2018 through a prior partnership with the University of Hawai'i West O'ahu. This was intended to facilitate longitudinal analysis now and in the future. While this was generally productive, we identified weaknesses in the wording of several 'legacy' questions after the survey was complete. When possible, questions were crafted to allow for comparison with the existing data sets from these studies, as well as external data sets from the US Census and State of Hawai'i.

We deployed the questionnaire to the alumni using Qualtrics software. Respondent anonymity was assured by buffering the survey results from direct access by MA'O staff. Primary data was accessible only to our external partners, who provided de-identified data and analysis to MA'O staff. Statistical significance levels noted throughout the analysis were set at \* (P<0.1), \*\* (P<0.05), and \*\*\* (P<0.01) using the students t-test where appropriate comparisons between groups/data sets were made.

We invited all (100) YLT alumni for whom current contact information was available to participate in the online questionnaire, and encouraged all alumni to extend the invitation further through their own networks. We shared context for the project and our aspirations for the study, and offered a \$20 incentive for completing the questionnaire. For six weeks, MA'O staff conducted a concerted communications effort to encourage alumni to complete the questionnaire, including emails, social media posts, texts, and direct phone calls. Current and past MA'O staff followed up with the individual alumni with whom they have strong bonds of trust. This culminated in **62** alumni providing complete questionnaire responses, which represents **62%** of current contacts, and **20%** of the total alumni population.

Compared to the total alumni population (N=315), the questionnaire respondents (N=62) had a very similar gender (63% vs. 56% female) and native Hawaiian (79% vs. 81%) makeup. However, the questionnaire respondents differed from the total alumni population in ways that may have limited the ensuing analysis: the respondent group had a higher percentage of those who achieved an associate degree (53% vs. 40%), participated in 4 or more semesters in the YLT (63% vs. 40%), and participated in a post-YLT internship or staff position at MA'O (48% vs. 15%). Compared to the total alumni population, the respondent group was under-representative of Cohorts 6-11.5 (40% vs. 67%) and the DMED program track (8% vs. 24%). **These demographic differences between the sample and parent alumni groups suggest that the questionnaire results may not generalize to all YLT participants, particularly those who stayed in the program for a shorter duration, did not attain a post-secondary degree, did not elect to stay on at MA'O for further internship or staff opportunities, or participated in the DMED track.** To mitigate this weakness, further analysis was done to illuminate potential differentiation of outcomes across these attributes.

In future inquiries, additional effort must be made to connect with participants who left MA'O before completing the program, those who have not (yet) received an associate degree, and those who perhaps do not feel positively about their YLT experience. Feedback from these individuals is particularly critical to ongoing program refinement, as well as recommendations to MA'O's education partners and policy makers. We are hopeful that

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<sup>9</sup><https://static1.squarespace.com/static/5cc8cd5d65019fb4eca037be/t/60dcc1c847eb272b3b3e2bf0/1625080265936/YLT+Alumni+Survey+Qualtrics+Questionnaire.pdf>

this broader participation will also be facilitated by the alumni who did participate in this inaugural effort, thereby strengthening their pilina with MA'O and each other. We also intend to further deepen these rekindled connections through post-survey events as COVID-19 restrictions are lifted.

## Interviews

To complement the questionnaire data, we conducted one-on-one interviews with **21** respondents (**34%** of the questionnaire respondents and **7%** of total alumni population). The interviews were intended to elicit nuanced and in-depth information and self-reflection about participant outcomes, as well as to clarify the relationship between alumni's personal capacity, YLT program impact, and environmental factors (largely immutable structural, geographic, and relational realities). The interview questions were designed to gather information about alumni well-being in the four outcome areas outlined above, as well as their experience within the YLT and reflections about its impact on their lives since leaving the program. See Appendix E for the interview script.

Interviewees were initially selected from the 100 current contacts using a stratified random selection process; however, the random selection process did not yield a group sufficiently representative of the variation across the seven key attributes. Several attempts were made to control for this, including repeated randomization of the pool and dropping of individuals who skewed the interviewee group. However, when it became clear how challenging it was to secure participation in the questionnaire itself, we abandoned the random selection approach and elected to use a convenience sampling approach by opening up the interview opportunity to all current contacts. This was done to increase the number of interviewees in order to gain as much as insight as possible. Purposeful selection of interviewees by key attributes was not implemented due to the importance of assuring anonymity for participants so that they would know MA'O staff would not be able to link their responses to them as individuals.

Twenty-one alumni volunteered for the one-on-one interviews, with at least one individual representative of each characteristic across the seven key attributes. However, the group was not representative of the makeup of the total alumni population. It was slightly under-representative of males (33% vs. 44%), native Hawaiians (62% vs. 81%), and DMED track participants (10% vs. 24%). The interviewee group was over-representative of participants from cohorts 12+ (43% vs. 9%), those who stayed in the program for 4+ semesters (57% vs. 40%), those who achieved at least an associate degree (62% vs. 40%), and those who pursued post-YLT MA'O internships or positions (43% vs. 15%). As with the survey groups, this reflects the greater propensity of recent cohorts to be in contact with MA'O, and to have pursued one of the increasing number of post-YLT opportunities that have opened up at the organization since 2018. We expect that this may have skewed the interviews to reflect a generally more positive interpretation of the YLT program experience. We undertook further analyses of subgroups of particular interest – e.g. those who did not complete their associate degree – to ensure that we learned as much as possible from the interviewees.

Our UHWO partners oversaw and conducted the interview process.<sup>10</sup> The interview questions and protocol were developed in partnership with the full project team, and refined based on feedback from the focus groups. We also did a test run interview to fine tune the process before deploying to the full group of 21 interviewees. The interviews each lasted one to three hours, yielding a rich set of content and insights. They were conducted online via Zoom, recorded, and professionally transcribed for later analysis. Participants were assured of the anonymity of their responses, in hopes of encouraging them to be as open as possible, including with constructive feedback for MA'O about their experience in the YLT program. Primary analysis was undertaken by our external partners using the qualitative data analysis software NVivo to code the transcripts and develop themes, which was then

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<sup>10</sup> The interviews were conducted by an undergraduate student who was supervised by Christy Mello, PhD, Professor of Applied Cultural Anthropology at UHWO.

followed by more in-depth analysis to interrogate the themes, relationships across themes, and the relevance of key attributes. Our partners de-identified quotes prior to sharing them with MA’O staff.

## Biometric Data

Finally, the survey included the analysis of biometric/biospecimen data to assess the alumni’s physical health outcomes, beyond their tenure as members of the YLT. This was an extension of the ongoing Maui Ola health study, to determine the persistence of the improved clinical outcomes observed in interns during their time in the program and compared to the general Wai’anae population. Data gathered included self-reported measures of food security, diet/nutrition, health-related behaviors, self-esteem, and body mass index (BMI). A subset of alumni also donated blood and fecal samples; the former was used to assess for diabetes risk as measured by the blood biomarker hemaglobin A1C (HbA1C) and the latter was used to corroborate self-reported vegetable intake scores using agnostic gut microbiome results.

The general methodology for the biometric analysis included a comparative analysis of health metrics of MA’O YLT alumni respondents (n=62) and an age/gender-balanced non-MA’O peer control group (n=157) in the same community (Wai’anae moku). In addition, variability between alumni participants was evaluated according to their respective cohort; as noted above, we grouped the separate cohorts into three groups based on how recently these individuals participated in the YLT, from “old” (cohorts 1-5), to “medium” (cohorts 6-11.5), and “young” (cohorts 12+). Comparative statistical analyses (i.e. t-test) were employed using a cross-sectional study design. Comparisons between the alumni and peer data potentially indicate residual effects attributed to the MA’O YLT program, whereas comparisons between cohorts within the alumni group potentially indicate the persistence over time of effects attributed to the YLT.

Ultimately, a subset of the alumni respondents (**n= 25**) provided blood samples for A1C analysis, a slightly smaller subset of whom (**n=17**) also elected to donate fecal samples from which their gut microbiome composition was evaluated as a means to validate self-reported nutrition metrics. The 25 individuals represent 40% of the 62 survey participants and 8% of the 315 total alumni pool; the 17 represent 27% of the study participants and 5% of the total alumni. **While the relatively small number of biometric participants precludes broad generalizations based on A1C and microbiome analysis, this data is used to corroborate the self-reported health metrics (BMI, diet, etc.) from the questionnaire. The data also provides the opportunity for further analysis into the persistence of health outcomes for individual alumni who participated in prior Maui Ola studies.**

See Tables 1 and 2 (pp. 16-17) for a detailed comparison between the subset of participants who contributed physical samples and the total alumni population. The biometric participants were reflective of the gender makeup of the total alumni pool (56% female in both groups), but slightly lower in terms of native Hawaiian representation (64% vs. 81%). **There were no DMED track biometric respondents (0% vs. 24% of total). All biometric analysis is therefore specific to MA’O programming.** As with the questionnaire respondents and interviewees, the biometric respondents were over-represented by those with an associate degree (60% vs. 40%), those who spent 4+ semesters in the YLT program (72% vs. 40%), and those who took on post-YLT roles at MA’O (68% vs. 15%). It was particularly enriched for those in Cohort 12+ (44% vs. 9%). This was not surprising, given that members of Cohort 12.5 and up had participated in earlier data collection for the Maui Ola Study (2017-ongoing) and so have a contextual understanding of and firsthand experience with the collaborative health research process. The majority of these individuals are also currently in the MA’O space in some form or another – as Ho’owaiwai Youth Leadership Training (HYLT) interns who are bridging from the YLT into four-year baccalaureate programs, members of the professional Farm Apprenticeship program, or staff members. As such they have strong bonds of trust, existing pilina with the HI’A staff, and a sophisticated awareness of the Maui Ola Study intention, process, and outcomes. By contrast, this was the first time that MA’O had asked members of YLT cohorts 1-12 for personal health data and biospecimen samples.

Securing biospecimen samples was always going to be difficult, and the pandemic greatly exacerbated this process. Through our experience with the Maui Ola Study (2017-ongoing) we learned that substantial efforts are required to build pilina, trust, and a sense of reciprocity sufficient to overcome the individuals' reluctance to share their personal health data, particularly physical samples. Pandemic-related restrictions on gatherings precluded the MA'O and HI'A team from holding in person events during the March-October leadup to the biometric data gathering. Instead, MA'O staff communicated this complicated and nuanced topic through written communications and using a video created by a YLT alumna (a current HYLt intern) who is pursuing her bachelor's degree in Hawaiian and Indigenous Health and Healing at UHWO. These communications focused on what MA'O, the interns, and the community have been learning through the Maui Ola Study, the opportunity for participants to learn about their own health, the significance of their data to facilitating positive community health outcomes, and a (\$50) incentive provided to participants to compensate for their time.

**The difficulty we experienced in securing alumni's physical samples for biometric analysis underscores the critical role of pilina and trust building for future collaborative health inquiries and community-based participatory research (CBPR) efforts.** Based on our experience with both the Maui Ola and alumni study efforts, we know that this must encompass not only MA'O youth and MA'O staff, but also the medical/research team, who are traditionally anonymous and nearly invisible to research "subjects." We have found that it is vital to establish direct relationships between the youth and the research team prior to engaging in sample gathering, and that this is best accomplished through interactive discussions about the underlying health issues to be examined. This builds a shared understanding of the personal relevance of the health data to be gathered, trust in the process and people involved, and the salience of the research for the community.

Reflecting our commitment to using the project to develop the alumni community's empowerment and agency, personal health information (including A1C metrics and gut microbiome composition) was shared directly with individual survey participants, along with resources available to address any health-related needs that were revealed through the study. MA'O staff and a HYLt intern partnered with HI'A staff to develop an online dashboard for this purpose, which we hope will serve as a template for our ongoing collaborative health research efforts with the YLT interns and other community members.<sup>11</sup>

## Peer Comparisons

Comparisons are made throughout the following analysis between the alumni questionnaire respondents (n=62) and a Wai'anae peer group (n=157). The Wai'anae peer group was selected to align as closely as possible with the alumni population across the key characteristics of age, gender, household income, and household size. See Table 3 for a comparison of the two groups. The peer data was gathered through the Maui Ola study between 2017-20, and was accessible to the HI'A researchers. It was scrubbed to ensure that there was no duplication of individuals between the MA'O alumni and peer groups.

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<sup>11</sup> <https://www.hia.llc/mao-dashboard>

Table 3 Comparison of Alumni Questionnaire Respondents & Wai'anae Peer Group

Characteristic	Alumni Questionnaire Respondents N = 62	Waia'ane Peer Group N = 157	Alumni Questionnaire Respondents N = 62	Wai'anae Peer Group N = 157
<b><u>Gender</u></b>				
Female	38	97	63%	62%
Male	21	59	35%	38%
Other	1	0	2%	0%
Unknown	2	1	2	1
<b><u>Age Group</u></b>				
average age	27.2	29.6	27.2	29.6
Variance	4.07	8.81	4.07	8.81
<25	20	49	32%	31%
25-44	42	108	68%	69%
>45	0	0	0%	0%
<b><u>Total Family Income</u></b>				
Less than \$25,000	10	46	19%	47%
\$25,001 to \$50,000	5	21	9%	21%
\$50,001 to \$75,000	12	14	23%	14%
\$75,001 to \$100,000	10	8	19%	8%
\$100,001 to \$125,000	6	6	11%	6%
More than \$125,000	6	3	11%	3%
Decline to respond	4	0	8%	0%
Unknown	9	59	9	59
<b><u>Household Size</u></b>				
0	0	1	0%	1%
1	2	9	3%	6%
2	7	14	11%	10%
3	10	22	16%	15%
4	16	17	26%	12%
5	7	11	11%	8%
6	2	22	3%	15%
7	5	14	8%	10%
8	4	11	7%	8%
9	3	4	5%	3%
More than 10	6	14	10%	14%
Unknown	0	11	0	11



## STUDY RESULTS

As noted previously, we expect that YLT program participants will experience a wide range of positive outcomes, both during their participation in the program (e.g. higher rates of post-secondary degree attainment), and over the long-term (e.g. an ongoing connection with ‘āina). Given the holistic nature of the YLT program experience, training, and mentorship, we anticipated that YLT alumni would report a wide range of positive changes that accrued during and as a result of their participation in the YLT. In particular, we expected that a majority of YLT participants would report improvements in areas critical to promoting their academic and professional success. We also anticipated that YLT participants would also exert a positive influence on others in their families and social networks, and that they would report positive changes for their families, in addition to themselves.

In the following section we analyze the questionnaire close-ended and open-ended questionnaire responses, as well as the one-on-one interviews, to explore the specific questions and broader inquiries with which we began this project (see pp. 12-14 for a complete list of expected outcomes and areas of interest). Direct alumni quotes from the open-ended written responses, interviews, and focus group ‘ohana dialogues are included to illustrate significant points in the alumni’s own words. The results section is divided into six subsections, starting with the alumni’s insights regarding the YLT experience’s impact on their overall well-being and agency. We then examine alumni’s perspectives about the YLT experience and their post-program outcomes in the four areas of **education attainment, socioeconomic status, health and well-being, and community connectedness**. Finally, we look at attrition and discuss the respondents’ recommendations for refinement of the YLT program.

Alumni self-reports regarding the personal and ‘ohana changes that they attribute to their participation in the YLT were gathered using a 5-point Likert scale running from -2 (decreased significantly) to +2 (increased significantly), as depicted in Table 4. Throughout the analysis we indicate the respondents’ mean response.<sup>12</sup> The data was also analyzed to determine whether there were any divergences in self-reported changes associated with duration in the YLT program, and whether positive changes correlated with students who successfully attained their associate degree – notable findings are indicated.

Table 4 Likert Scale - Alumni Self-Reported YLT Impact

-2	-1	0	+1	+2
Decreased Significantly	Decreased Somewhat	No Change	Increased Somewhat	Increased Significantly

First, we note that the majority (63%) of alumni who participated in the questionnaire currently live in Wai‘anae, while 27% live elsewhere in Hawai‘i, and 10% live on the continent (see Table 5). We believe that this is representative of the total alumni population, but are not sure given that we are not currently in contact with two-thirds of our alumni community. We note the geographic distribution here as important context for the ensuing analysis, which is inherently Wai‘anae-centric.

Table 5 YLT Alumni Current Community of Residence

Current Residence	Number of Alumni	% of Alumni
Wai‘anae Moku	40	63%
Other Hawai‘i	16	27%
Continental US	6	10%
Unknown	1	1%

<sup>12</sup> While there were individual responses in the 0 to -2 range, the mean response was not negative for any of these questions. We have therefore simplified the relevant graphs to run from mean responses of 0 (no change) to +2 (significant increase).

## YLT Program Experience

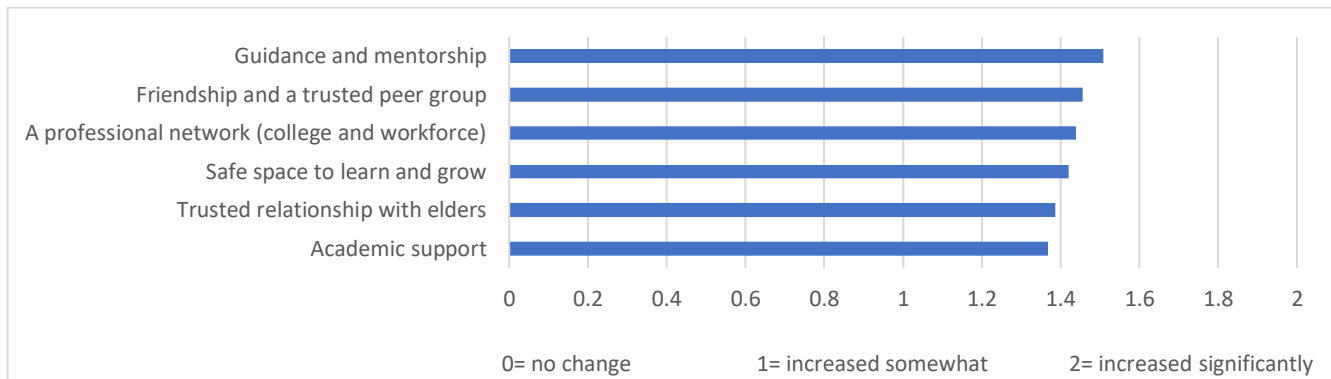
### Well-Being & Agency

In this section we examine the impact of the YLT program on participants' sense of agency and general well-being, from the vantage point of the alumni's own perspectives about their experience in the program. These were significant themes that emerged when alumni were asked to recall their YLT experience and reflect on its subsequent impacts during the focus group 'ohana dialogues, on the questionnaire, and in the interviews. The majority of alumni also identified accessing resources through the program that have facilitated their success.

#### Questionnaire Findings

Alumni reported substantial gains in support stemming from their participation in the YLT (see Figure C). This support included: guidance and mentorship, friendship and a trusted peer group, a professional network, a safe space to learn and grow, trusted relationships with elders, and academic support. There was no statistically significant variation between the increased support reported by those with or without an associate degree.

Figure C Increased Support Received Through the YLT



Alumni also attributed positive changes in their well-being to their participation in the YLT, most notably in the area of self-determination, followed by an increase in their hopes for the future, their confidence, financial responsibility, life, work, and school balance, and self-care. No significant variations were noted between cohorts or based on semesters completed (Figure D). Three areas of divergence between those who achieved their associate degree and those who have not were statistically significant: hope about future and goals ( $P < 0.10$ ); confidence ( $P < 0.10$ ); and life, work, and school balance ( $P < 0.05$ ). (Table 6)

**We note here that the greatest reported gains in well-being are in areas where students have the greatest personal agency: self-determination, future hopes and goals, and confidence.** This reinforces the interview findings, in which participants emphasized how their agency grew through the YLT program (see p. 30). Meanwhile, in the areas that are more prone to influence by outside factors such as financial circumstances and family kuleana – financial responsibility; life, work, and school balance; and self-care – alumni reported slightly more modest gains. This raises interesting and challenging questions regarding the complex interplay between youth's experience *within* the YLT program and their structural, environmental, and familial context, which can impinge upon and/or bolster individual experiences and outcomes.

Figure D Well-Being Improvements Attributed to the YLT

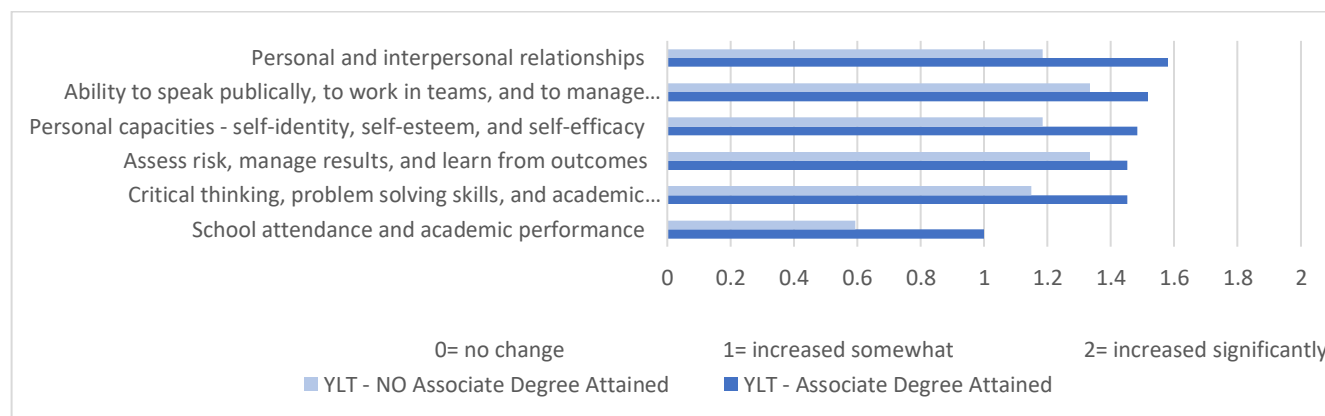


Table 6 Well-Being Improvement Divergence Between Alumni Who Did & Did Not Attain an Associate Degree

	Alumni Associate Degree Attained	YLT - NO Associate Degree Attained	Significance
Hope about future and goals	1.65	1.11	*
Confidence	1.55	1.15	*
Self-determination	1.65	1.26	
Financial responsibility	1.45	1.11	
Life, work, school balance	1.45	0.89	**
Self-care (i.e., sufficient sleep, relaxing activities, exercise, eating well)	1.10	0.81	

Alumni also identified increasing their capacity through the YLT in areas critical to academic and future professional success. Their greatest reported gains were in the areas of interpersonal relationships; team work and public speaking; self-identity, self-esteem, and self-efficacy; risk assessment and learning from outcomes; and critical thinking and problem solving. Alumni also reported that their school attendance improved somewhat.<sup>13</sup> (See Figure E.)

Figure E Capacity Improvements Attributed to Participation in the YLT



<sup>13</sup> Figure E is an example of our process learning; in future analyses attributes included in any single question will be more clearly defined (to avoid conflating distinct topics), and better grouped.

We note that alumni who have not attained an associate degree indicated lower gains than those who have attained an associate degree or higher (Table 7). This divergence was statistically significant for four outcomes: improved personal and interpersonal relationships ( $P < 0.05$ ); and critical thinking, problem solving skills, and academic performance; personal capacities; and school attendance (all  $P < 0.10$ ). This indicates a clear relationship between the acquisition of skills and capacities acquired in the YLT and post-secondary graduation outcomes. We note that personal and interpersonal relationships were identified as the area of greatest gain for those who have attained a degree, which corroborates our experience that pilina between peers, across cohorts, and with staff and mentors, is a critical predictor of YLT participants' academic success.<sup>14</sup> **Together, these results indicate that the YLT program contributes to participant persistence, as it mimics the 'ohana role of providing resources, support, and relationships.** The question remains: why and how is this strong enough to balance or outweigh the challenges youth face when entering the program (e.g. insufficient academic preparation or financial pressure) for some, but not all YLT members? This surfaces the complex interplay between personal capacity, program competency, and environmental factors.

Table 7 Well-Being Improvement Divergence Between Alumni Based on Degree Attainment

	Alumni Associate Degree Attained	YLT - NO Associate Degree Attained	Significance
Personal and interpersonal relationships	1.58	1.19	**
Ability to speak in public, to work in teams, and to manage my finances	1.52	1.33	
Personal capacities - self-identity, self-esteem, and self-efficacy	1.48	1.19	*
Critical thinking, problem solving skills, and academic performance	1.45	1.15	*
Assess risk, manage results, and learn from outcomes	1.45	1.33	
School attendance and academic performance	1.00	0.59	*

Alumni also reported that the YLT resulted in increased engagement with their personal education goals, family connections, and self-advocacy. Unsurprisingly, given the nature of the program, alumni reported that during the YLT they worked in community and engaged in more aloha 'āina/mālama 'āina activities. They also reported positive, but slightly more modest, gains across a range of social, cultural, and community oriented activities. (See details in Figure F). There was no statistically significant difference based on program duration or cohort. However, there was a statistically significant divergence between those who achieved their associate degree and those who have not in two areas: advocating for your education ( $P < 0.01$ ) and pursuing further education ( $P < 0.05$ ) (see Table 8). This divergence is particularly notable given the direct relationship between these skills and the successful attainment of the college degree.

<sup>14</sup> In January 2021 the MA'O 'Auwai team conducted a survey and series of focus groups with current Leeward Community College students, including those in the YLT and two LCC-led cohort programs. The students repeatedly identified peer, counselor, mentor, and staff relationships as vital to their academic persistence. O Ka Leo O Ka Manu report to the Stupski Foundation (February 2021)

Figure F Increased Engagement During the YLT

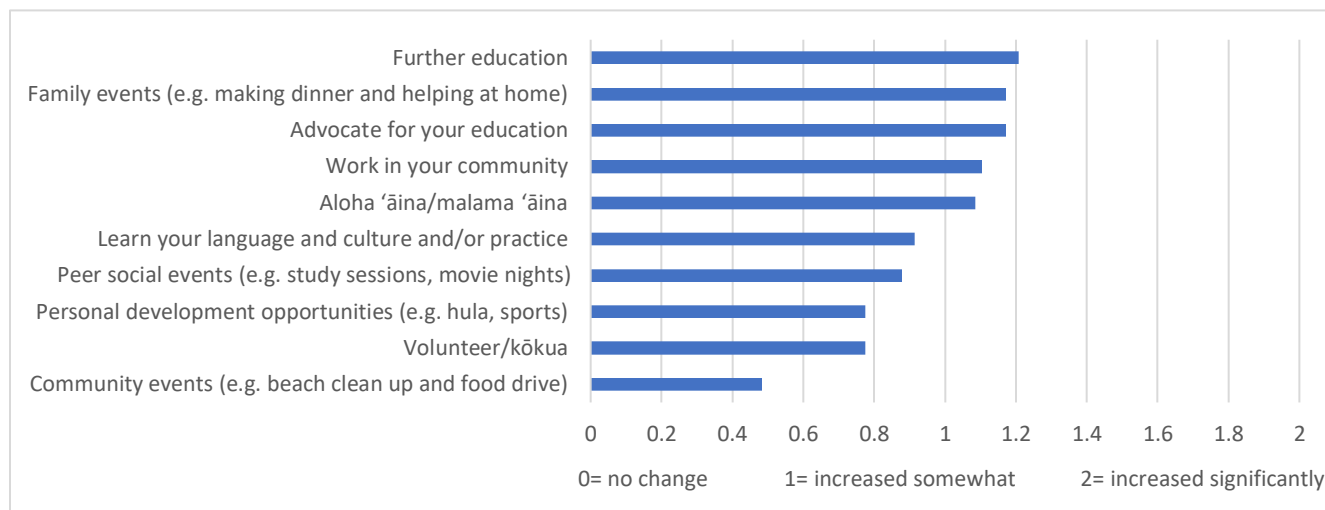
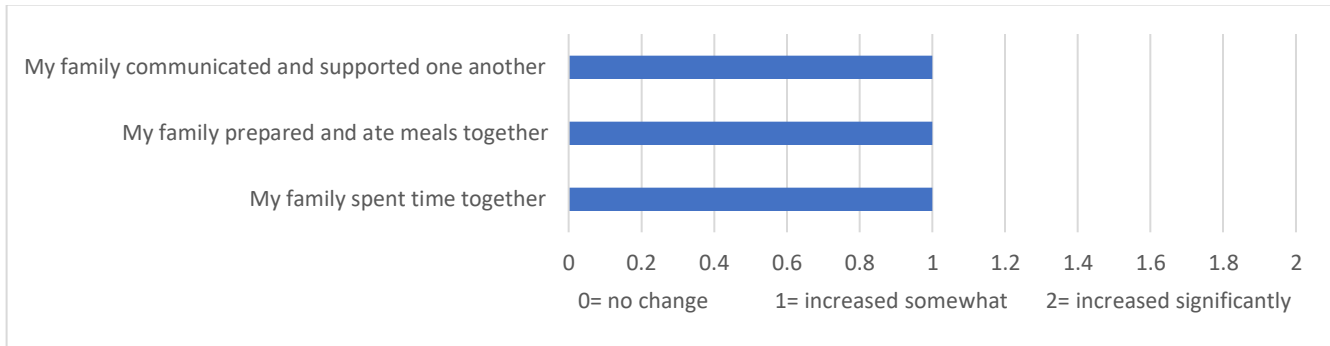


Table 8 Engagement Increase Divergence Between Alumni Based on Degree Attainment

	Alumni Associate Degree Attained	YLT - NO Associate Degree Attained	Significance
Further education	1.55	0.81	**
Advocate for your education	1.52	0.78	***
Aloha 'āina/mālama 'āina	1.29	0.85	
Family events (such as making dinner and helping at home)	1.23	1.11	
Work in your community	1.19	1.00	
Peer social events (such as study sessions, movie nights)	1.03	0.70	
Learn your language and culture and/or practice	1.03	0.78	
Volunteer/kōkua	0.90	0.63	
Personal development opportunities (such as hula or sports activity)	0.87	0.67	
Community events (such as beach clean up and food drive)	0.48	0.48	

Finally, alumni reported that their relationships with their families improved somewhat as a result of their participation in the YLT. This was measured through self-reported increases in communication and support, preparation and eating of meals together, and spending time together (see Figure G). We note that this appears to reinforce the self-reported improvements in personal and interpersonal relationships noted previously (Figure E). This demonstrates the broader impact of the YLT program, and the capacity of the interns to act as agents of change in their families and social networks. This is, however, a distinctly second tier impact, with more muted improvements in family relationships than in the areas of personal growth discussed above. This likely reflects the YLT's emphasis on building the capacity of individual participants, and the fact that the program has historically not been geared toward direct engagement of participants' 'ohana. (See pp. 76-77 for further discussion of interns' suggestions regarding 'ohana engagement).

Figure G Improved Family Relationship Due to YLT



### Interview & Focus Group Results

The vast majority of interviewees reported that they had transformative experiences through which they deepened their self-determination. Specifically, the alumni described feeling empowered with a sense of agency over their decisions and choices about their futures. They attributed their personal growth, increased confidence, and strengthened work ethic to the leadership, communication, and interpersonal skills they learned through the program. Alumni also noted that the program connected them with resources and offered them a sense of community. One of the ‘ohana dialogue focus group participants distilled the experience as one of learning to advocate on their own behalf, work hard, and learn from their mistakes:

“ *the biggest thing I pulled out of MA’O was knowing your resources and your opportunities, and then kind of training yourself to make an active effort to take the opportunities that you have and set yourself up to build on the ones that you did take or your doors you might have opened. But not really expecting anything too. I guess it could be general work ethic. Work your ass off when you can, but don’t expect anything to be given to you even in the opportunities. But just try to keep building on your past successes and learn from the opportunities that you didn’t take or your failures.* (Focus Group)

“ *I feel a lot more independent (...) after going to MA’O and experiencing what I experienced. I think having just that drive to want to succeed, having that drive to want to get a job, having that drive to do things on my own. I feel like that is where MA’O was kind of the baby crib to get me out into the world. You know what I mean. Like, “Okay, let me just cradle you for a little bit, but go on and do your thing.” I feel like MA’O has a lot. It instilled a lot in me. It is like crazy because I feel like I am only realizing it now that I am older.* (Interview Cohort 1-5)

“ *it definitely taught me to be my own person rather than continuously following after someone. It just taught me a whole lot, whether it be time management, whether it be leadership or getting what I need, to using all of my resources around me and using them, actually using them, (...) it might’ve been intentional for them to teach us, but it wasn’t my intentions going into the program. So it was a whole lot of just about everything a person should always learn growing up and becoming an adult.* (Interview Cohort 12+)

When the interviewees described building their interpersonal skills and emotional intelligence through the YLT, they spoke of learning how to treat others and themselves, learning how to ask for help, taking a positive attitude towards others and themselves, practicing self-care, treating others with kindness, having a positive attitude, being open minded, not making excuses, and finding purpose. They also discussed valuing and developing characteristics of confidence, determination, humility, love and respect, and patience.

“ *Having a connection or just knowing that there is a deeper sense of community. (...) one of the greatest things I think I got out of the program is just tapping into resources and learning that we really all need each other to survive. But literally, I think that MA’O has been kind of that foundation piece. Even though I was only in the program for, I want to say maybe like a year or so in school. But after that, I felt like, when I look back, a lot of times, it goes back a lot to our resources and sustainability. If Hawaii really wants to be sustainable it goes all back to the land. It goes back to the community and it goes back to people helping one another. (Interview Cohort 1-5)*

The vast majority of interviewees (19 of 21) also indicated having developed their aspirations through the YLT program; the most common goal was a specific career plan, closely followed by finishing college, with a smaller subset aspiring to grow food or build community. All 19 of 21 interviewees who discussed having strengthened their aspirations through the YLT attributed this in part to the leadership, work ethic, communication, and interpersonal skills that they developed through the YLT. The majority of alumni had also described specific academic and training for fulfilling their career aspirations, reflecting the confidence and self-determination instilled through the YLT.

“ *I learn to be more disciplined with my work. And making sure that I get everything done and turned in and on time. And one of the things that has stuck with me since I have left with MA’O is the mantra that Papa Aila would always tell us, "Love, respect and the willingness to work." He would tell us that at every check out. And being in the YLT, it is like, okay, I get it. I understand what Papa Aila is saying. But it does not really take effect until after you leave. And then you realize it is true. And so with everything that I have done thus far, I tried to do it with love, respect and a whole lot of willingness to work. (Interview Cohort 1-5)*

### Questionnaire Results

The alumni were also invited to share open-ended responses on the questionnaire about how the YLT experience impacted them; 24 participants responded. The themes that emerged from their comments echoed the interviewees’ description of the YLT program as a place of growth, most notably in the area of personal development. (See Table 9). Here we share several representative comments in the alumni’s own words.

“ *I learned more about myself, my potential, and challenges during my YLT experience.*

Theme: Personal Development (Cohort 12+)

“ *It has helped me to continue to grow food and grow young people to be forever in service to 'aina.*

Theme: Community (Cohort 1-5)

“ *YLT gave me a better understanding of our community and appreciate hard work.*

Theme: Community (Cohort 6-11.5)

“ *I met amazing people, grew strong bonds, made some of the best friends I've ever had, met my other half, able to achieve my Associates Degree.*

Theme: Relationships (Cohort 6-11.5)

Table 9 YLT Alumni Program Experience Themes (Open-Ended Questionnaire Responses)

Theme	Number of Respondents	Percent of Respondents
personal development	14	58%
experience valued	5	21%
community	4	17%
relationships	3	13%
challenges	2	8%
<i>The total number of respondents is greater than the number who commented; some responses were coded as two themes.</i>		

“ *[YLT] taught me more about food than I deserved to know; taught me how to build relationships. Allowed us as young adults to connect and empower us from growing vegetables, to growing with one another.*

Theme: Personal Development (Cohort 6-11.5)

## Education Attainment

At MA’O we frame learning as a kuleana (both a right and responsibility), a value, an asset, and a culture. Teaching on the land or in the media lab reframes learning as something that happens beyond the classroom, and connects academic lessons with practical applications and community implications. Youth quickly become teachers in their own right, fostered by the near-peer mentorship embedded in the structure of having first and second-year cohort members work together and lead each other.

Through the YLT program, youth learn to persist in their post-secondary studies, and to understand the personal and professional value of their formal education and informal learning. Participants receive substantial staff support, including regular academic counseling informed through our partnership with Leeward Community College. They also support one another through the bonds developed within each cohort, and across cohorts, as new YLT entrants witness and learn from the experience of the youth in the preceding cohort. We expect that YLT participants will have improved education outcomes as a result of their experience in the program.

For context, **47%** of survey respondents self-identified as first-generation college students. This compares to **24%** of LCC students enrolled in 2020.<sup>15</sup> While data is not available for LCC Wai’anae Moku campus (the campus attended by the vast majority of the YLT interns, at least for the first year of their studies), it is anticipated that they more closely align with the YLT population. Throughout the following analysis of education outcomes, first generation students matched their non-first generation peers in the areas of degree attainment, further education aspirations, and inspiration of their social network to attend college.

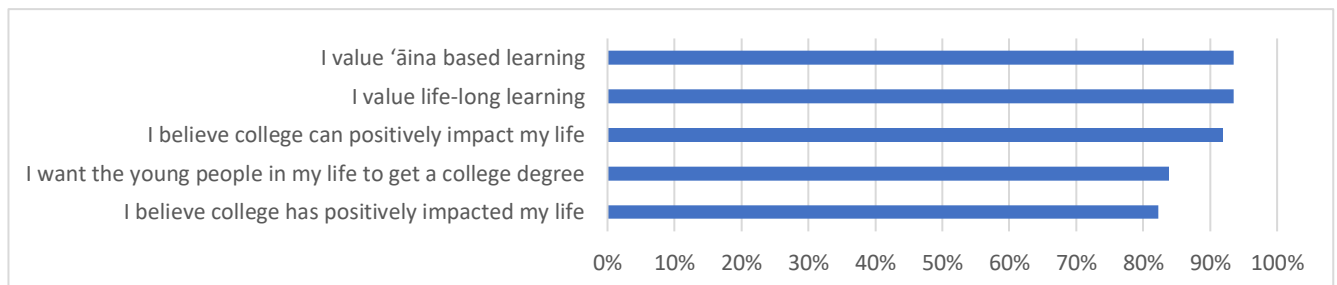
## Valuing Education

The YLT is intended to develop participants’ holistic and ongoing appreciation for education and learning, and to foster a college-going culture among participants, their families, and social networks. This reflects the value of ho’ona’auao, which situates the accrual of knowledge and practice as an educational journey wherein learning happens everywhere. We expected, therefore, that alumni would recognize the importance of a college degree, and, beyond that, value life-long and ‘āina-based learning.

### Questionnaire Findings

**The survey responses affirm that the vast majority of YLT alumni view education as an asset and value college, ‘āina-based, and life-long learning for themselves and others.** (Table 10)<sup>16</sup> There was no statistically significant difference in the valuation of life-long learning based on time in the program, which may be attributed to the highly uniform responses.

Table 10 Value of Education to YLT Alumni



<sup>15</sup> Enrollment Table 5 – Selected Student Characteristics Leeward CC – Fall 2020 – All Ethnicities – All Majors. Provided by LCC Chancellor Dr. Carlos Penalosa, February 2, 2021.

<sup>16</sup> Responses on a 5-point Likert scale were resolved to a yes/no scale - ‘strongly agree’ and ‘agree’ were identified as a “yes.”



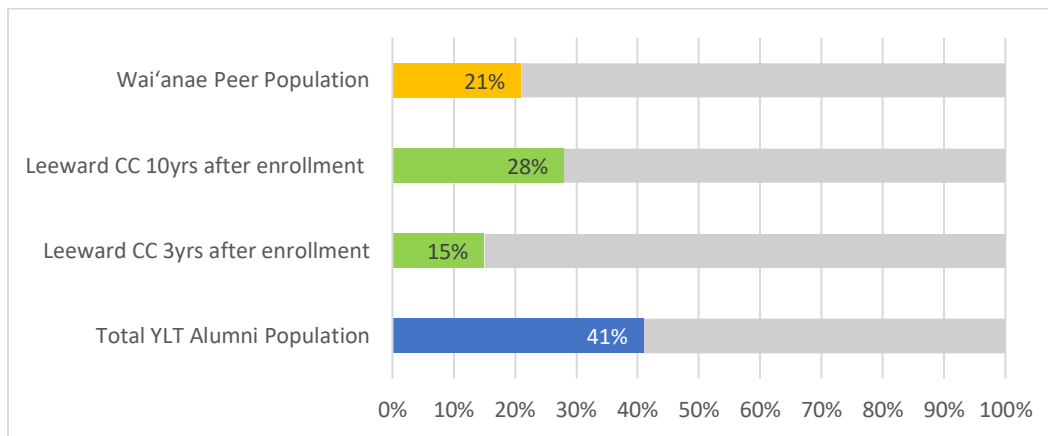
While 82% of alumni respondents believe that college has positively impacted their lives and want the young people in their lives to get a college degree, we note that a minority (18%) feel ambivalent or negative about college education in particular. Future analyses should focus on what is fueling this ambivalence, including the role of the barriers that alumni identified elsewhere in the study, including need for more family support, and financial pressure. Additional possible drivers to explore in future inquiries include poor experiences with instructors and/or the educational institution, the financial burden of going to school rather than working full time, and a lack of professional opportunities after receiving a degree.

## **Degree Attainment**

### **Questionnaire Findings**

As expected, YLT participants attain their associate degree at a substantially higher rate than their peers at LCC, with a cumulative YLT graduation rate<sup>17</sup> of 41%, compared with LCC’s 15% three years after enrollment.<sup>18</sup> YLT participants also substantially outperform their age-matched Wai’anae peers (n=157), 21% of whom have an associate degree. (See Figure H.) 19% of alumni respondents confirmed achieving additional certifications and professional credentials, in addition to their post-secondary degrees.

Figure H Comparative Associate Degree Graduation Rates



<sup>17</sup> Associate degree attainment figures were calculated using MA’O administrative data for the complete alumni community in cohorts 1-12.5 (n=315), rather than the more limited questionnaire respondent data set. MA’O tracks degree completion for all alumni, using data from the University of Hawai’i and the National Student Clearinghouse. This includes all degrees earned, regardless of the number of semesters required to graduate. The vast majority of YLT interns graduate within 2.5 semesters, while a small subset complete their degrees later.

<sup>18</sup> LCC grad rates for students enrolled 2005-15. <https://nces.ed.gov/ipeds/datacenter/facsimile.aspx?unitId=141811&goToReportId=6>

YLT alumni have also gone on to achieve further college degrees<sup>19</sup> at a higher rate than their age-matched peers in the Wai‘anae community. (See Figures I and J.)

Figure I YLT Alumni Highest Degree Attained

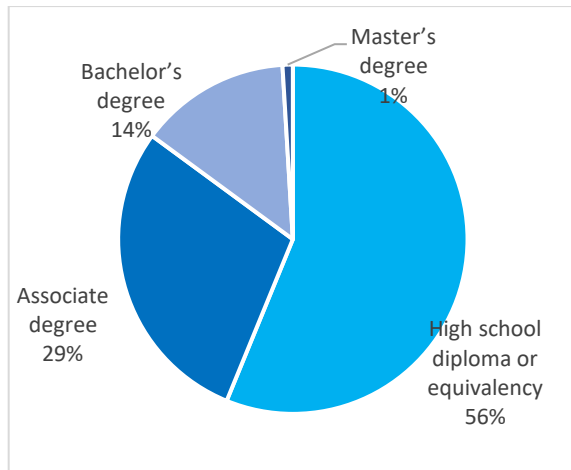
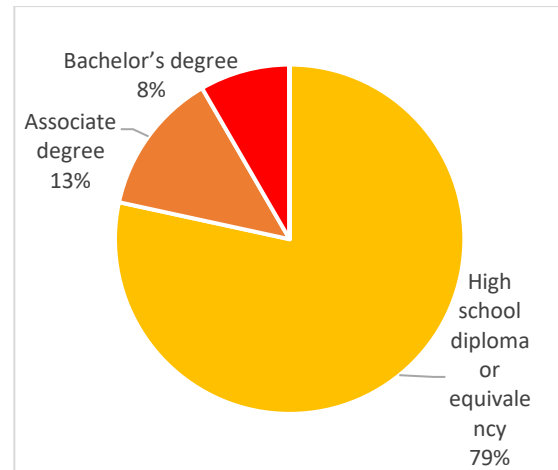


Figure J Wai‘anae Peers Highest Degree Attained



To better understand the YLT experience, we asked alumni if they changed their college major during or after their participation in the program, and if so, why. Fifty-eight alumni responded to this open-ended question, 48% of whom reported that they did change their major. This percentage was consistent across the cohorts. Their stated reasons for the change focused primarily on finding their interests and learning about themselves. In their written responses many alumni noted the role of the YLT program in helping to find their interest and learn about themselves.

Table 11 Reasons for Changing College Major

Theme	Total yes respondents	Percent of yes respondents
found interest, learned about self	14	52%
life experiences	9	33%
other	4	15%

“ *While in the program and college I got a better understanding of myself and what I wanted to do in my future. This influenced my decision to change courses even though I would have to start from scratch.*

Theme: Found interest, learned about self (Cohort 1-5)

“ *I was exposed to different people and opportunities thanks to the networking that I was able to do while at Ma'o. This allowed me to branch out and try different things and find what I'm good at and passionate about.*

Theme: Found interest, learned about self (Cohort 1-5)

<sup>19</sup> Further degree attainment analysis is likewise based on MA‘O administrative data for the total alumni community (n=315).

## Education Aspirations

### Questionnaire Findings

The vast majority (82%) of alumni stated their desire to achieve an additional college degree, regardless of their current degree status (Figure K). Over a third of respondents currently aspire to achieve a baccalaureate degree, and another third aim to attain a master’s degree. (Table 12) We note the increase in respondents’ aspirations as they progress through their post-secondary education, as well as their slightly higher education aspirations the longer they stayed in the program, though this was not found to be statistically significant. (Table 13.)

Figure K Alumni Aspiring to a Further Degree

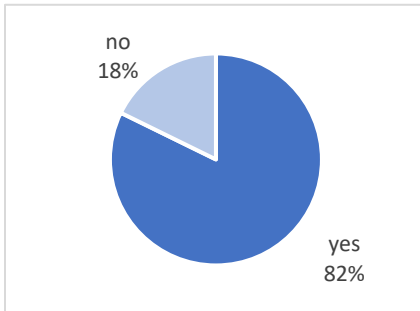


Table 12 Degree Aspiration By Duration in YLT

	Duration in YLT			Significance
	0-1 semesters	2-3 semesters	4 or more semesters	
Average Degree Aspiration	1.64	1.75	2.02	Not significant
n	11	12	39	
<i>Associate Degree = 1, Bachelor's = 2, Master's = 3, Doctorate = 4</i>				

Table 13 Education Aspirations Increasing with Degree Attainment

Degree Aspired To	Current Degree Status					Total
	High school diploma or equivalency	Associate Degree	Bachelor's Degree	Master's Degree	Other	
Associate degree	7%	0%	0%	0%	33%	5%
Bachelor's degree	35%	63%	0%	0%	33%	35%
Master's degree	12%	21%	83%	0%	33%	29%
Doctorate degree	0%	5%	8%	50%	0%	5%
Other	15%	0%	0%	50%	0%	8%
Unknown	31%	11%	8%	0%	0%	18%
<b>Total</b>	100%	100%	100%	100%	100%	100%

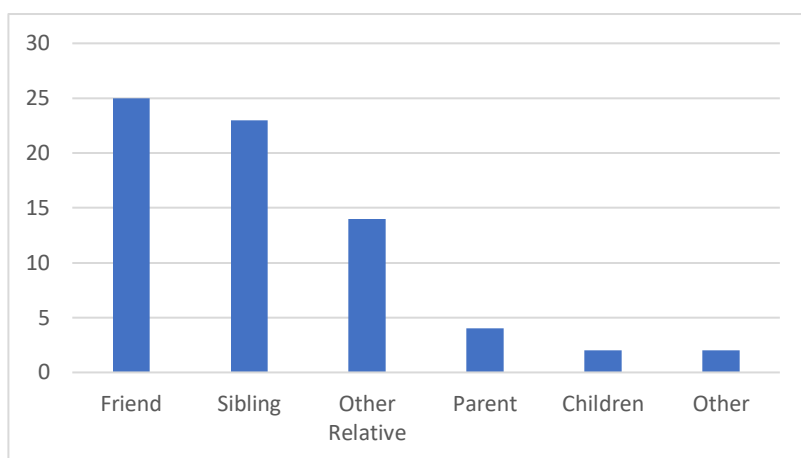
## Education Multiplier

As noted above, the YLT is intended to foster an intergenerational college-going culture among participants, their families, and social networks. To determine if the program is effective in this regard, we asked alumni if they have inspired others in their lives to attend college, and, if so, who they had inspired.

## Questionnaire Findings

**60% of alumni respondents said that they have inspired at least one other person to attend college.** About 40% identified having inspired a friend and or sibling, while a quarter said they had inspired another relative. The intergenerational impact was also evident in another way: four alumni indicated that they had inspired their own parents to attend college. Figure L identifies which individuals survey respondents have inspired to attend college. The 60% of respondents who said that they have inspired someone else to attend college identified a total of 70 individuals who they have inspired, representing a multiplier impact of 1.13. This is another strong indicator of the amplification of the YLT program through participants' social networks. To learn more about the program's efficacy in establishing a college going culture among participants' families and social networks, future inquiries should include follow up conversations with the individuals who were identified as having been inspired through which we can identify the parameters of such influence.

Figure L Individuals YLT Alumni Have Inspired to Attend College



“  
*[I am] a role model for my siblings and my cousins. And also for my family because I am the first child to go to college (...) I am not only doing it for myself but also for my younger siblings who will be like, "Okay, since you can do it, we might as well try to do it, too, because now we have somebody who has done it before."*  
(Interview Cohort 12+)

## Interview Findings

The vast majority of interviewees stated that their families had already valued college education, prior to their participation in the YLT. Nearly half said that the YLT experience further strengthened their families' positive view of college education, and 19% stated that they had inspired their siblings to attend college. We note here the difference between a family 'valuing' education and the reality of a young person successfully matriculating into and persisting in college. As noted above, this is an area for further investigation, as it was not clear from the interview conversations how or the degree to which the YLT experience influenced families' support of the participants during their college journey, and/or the decisions of siblings to attend college.

Interviewees also noted that their YLT peers and those ahead of them in the program served as powerful examples of the possible – and that they in turn served in that capacity for the younger interns as they came up. We see here another example of the YLT program serving in the 'ohana capacity for participants.

“*I never thought that I can do the things that I am doing now. (...) I do not have anybody that I look up to, and I go, "I want to be like you." (...) Like go to school, be able to finish my associate (...) I am also thinking of going to West O'ahu now that I never thought I would [go to] a university or even to a college after high school. So, I just never thought I would do [these] things without learning all the process [at] MA'O. They make it look like it is a normal thing like, "Okay, what are you going to do after this?" I am now thinking about it because everybody is doing it so I have to do it, too. And it makes you feel like, "What, you are giving up already?" Like, "There are more opportunities for you to do." (...) So I feel like the YLT really, [pushed] you, like, when I moved [up], there is always a new student coming in. And [when] there is a new student there, they look up to the older students. So, when you have that, it is like you want to do better for them, too, because they trust you, because you teach them, you give them advice (...) like the second cycle of learning and sharing because they inspired me and I inspired them and just keep doing the same thing over and over.* (Interview Cohort 12+)

## Socioeconomic Status

Socioeconomic outcomes for YLT participants must be viewed in the broader context of Wai'anae moku. Wai'anae was traditionally home to a strong and cohesive community that produced adequate food for its people while managing its land and water resources sustainably. Today Wai'anae is home to the world's largest and most densely populated community of native Hawaiians, who make up 60% of the community, compared to 20% statewide. The community also reflects the rich cultural legacy of plantation-era migration and more recent arrivals from Micronesia and beyond.

While it should be a vibrant rural community, Wai'anae has been undermined by decades of underinvestment following the cultural and economic violence of colonialism. Much of the population is mired in intergenerational poverty that is fueled by a historic severing of land and people and perpetuated by a lack of educational attainment and economic opportunities. Wai'anae reflects and concentrates many of the challenges faced by Hawai'i at large: a cost-of-living crisis, one of the highest per capita homeless populations in the nation, a lack of resiliency in the face of climate change, and a vulnerable import-dependent food system. The region's poverty is entrenched in the relationship between low educational attainment and low income, with 16% of the region's adult population lacking a high school diploma (11% statewide), and 88% lacking a Bachelor's degree (69% statewide).<sup>20</sup> This leaves well-paying jobs out of reach for the majority, relegating 25% of the community to living under the 100% federal poverty level, compared to the statewide poverty rate of 11%.<sup>21</sup>

Given MA'O's commitment to fostering community-based economic development, and to empowering and educating youth, we expect that the YLT alumni will experience improved socioeconomic outcomes, which will extend to their current and future families, as well as the larger community. We expect that, through the YLT program, participants develop their agency, self-determination, and confidence, build skills and knowledge, and grow personal and professional networks. As a result, we anticipate that YLT alumni will access meaningful and remunerative work in which they can exercise leadership, and that they will drive transformative change for their families and communities.

In the following section we explore alumni insights regarding their acquisition of workplace skills and competencies while in the YLT program, followed by an analysis of their post-program outcomes in the areas of: careers and meaningful work, leadership, wages, financial literacy, use of public benefits, experience with incarceration, 'ohana well-being, and food security. We selected these particular variables as our first attempt

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<sup>20</sup> US Census 2016 American Community Survey

<sup>21</sup> Ibid.

to more concretely understand the cascading impacts of investing in youth education and empowerment. Some of the variables – notably use of public benefits and incarceration – reflect an interest articulated in the social impact investing arena about the potential for avoiding future public costs through effective engagement with “at risk” youth, for example through the use of social impact bonds. While we see the potential in this line of inquiry, we also note that recent academic literature cites risks inherent in “the financialization and privatization of social and public policy; they reduce the rights of citizens both as service users and as a polity.”<sup>22</sup>

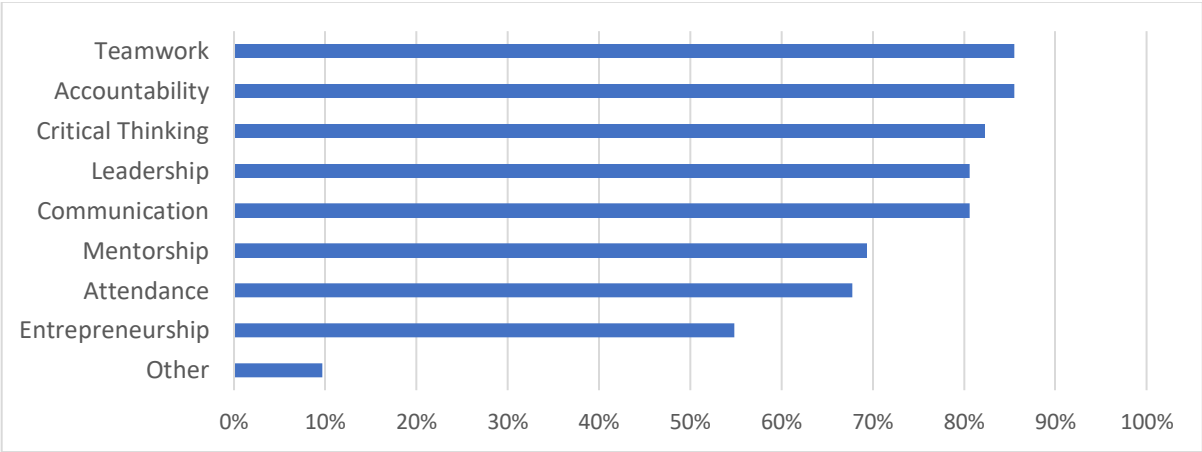
**Workplace Competencies & Skills**

As described previously, the YLT program is embedded in a working enterprise wherein youth work part-time. In this context, participants receive specific skills training to empower them to fulfill their individual and collective kuleana (responsibilities) to the enterprise, and general mentorship to equip them to succeed in their current and future career. We therefore anticipated that alumni would report having developed workplace competencies and skills during their time in the YLT.

**Questionnaire Findings**

Our expectation regarding workplace competencies and skills was resoundingly affirmed by the questionnaire data, as outlined below. **The vast majority of alumni reported that they developed workplace competencies during their time in the YLT.** Between 80% and 90% of questionnaire respondents reported strengthening their competency in the areas of teamwork, accountability, critical thinking, leadership, and communication. A significant majority also identified gaining mentorship and attendance competency, and more than half noted strengthening their sense of entrepreneurship. No significant variations in this competency acquisition was noted between cohorts, based on semesters completed, or MA’O/DMED program track. (Figure M) We note here that participants’ self-reported capacity improvements in areas including interpersonal relationships, public speaking, and problem solving (discussed above, pp. 27-28) are also relevant in the workplace.

Figure M Workplace Competencies Developed Through the YLT

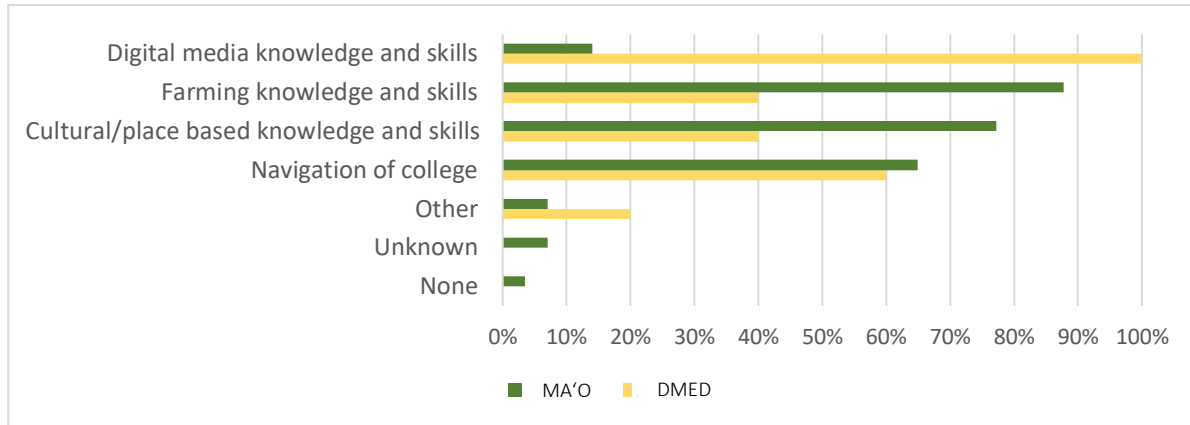


**Alumni also reported significant skill acquisition during the YLT.** No significant variations were noted between cohorts or based on semesters completed. However, there was a substantial divergence between the MA’O and DMED outcomes, reflecting the different program content and work experience in the DMED and MA’O program tracks. (See Figure N.) 100% of DMED participants reported acquiring digital media skills. 88% of MA’O YLT

<sup>22</sup> Roy, Michael J., McHugh, Neil, & Sinclair, Stephen. “A Critical Reflection on Social Impact Bonds” Stanford Social Innovation Review. May 2018 [https://ssir.org/articles/entry/a\\_critical\\_reflection\\_on\\_social\\_impact\\_bonds#](https://ssir.org/articles/entry/a_critical_reflection_on_social_impact_bonds#) accessed on April 20, 2021

reported acquiring farming skills and 77% reported developing their cultural/place-based knowledge and skills. Notably, 40% of DMED YLT also identified having developed farming and cultural/place-based skills, which can be attributed to their time working at MA’O during the shared ramp-up program. The majority of both MA’O and DMED YLT reported developing college navigation skills.

Figure N Skills Developed in the YLT - MA’O & DMED Tracks



### Interview & Focus Group Findings

The evidence of skill acquisition through the YLT that emerges from the questionnaire responses outlined above was affirmed and further detailed through the in-depth interviews and ‘ohana dialogue focus groups. Though the interviewees were not asked directly if and how the skills they acquired in the YLT apply in their lives now, the interview responses to relevant questions were analyzed to assess for this impact. In retrospect, this should have been asked as a question in itself during the interviews.

**All 21 interviewees identified at least two skills they learned in the program that they continue to apply in their lives today.** Of the 28 different skills identified, the most common ones include: leadership, hard work ethic, interpersonal skills, skills related to local food, feeling connected to community, punctuality/meeting deadlines, and time management.

Interviewees who identified having gained leadership skills through the YLT described this primarily as the ability to be role models. Those who focused on having learned a strong work ethic spoke of having to wake up early and engage in hard labor while at MA’O, which gave them a sense of confidence that they were capable of hard work. They came to value this as a result of their experiences, and are applying it to their lives today at work and school. Alumni who highlighted having developed a sense of community through the YLT commonly referenced learning about interdependence with others, particularly as it relates to culture and/or growing food. Those who specifically referenced gaining local food-related skills spoke about growing their own food and making informed food purchasing choices (see further discussion in the food sovereignty discussion pp. 58-60). Those who identified gaining interpersonal skills made reference to their current application of communication skills in the workplace. For example, when asked how they deal with challenges and difficulties today, interviewees identified discussing problems with others, taking a positive attitude, self-care, asking for support, thinking through problems, dealing with issues directly and immediately, and applying time management skills. This emphasis on the post-program applicability of interpersonal skills was echoed in the focus group discussions, too:

“ a big part of the YLT and then going through the process was developing interpersonal relationships and learning how to not only interact with people professionally, but interact with other people in the work environment outside that. (...) because [our time on the farm] wasn't easy or smooth, and it allowed me to develop skills to either cope or settle that kind of stuff and just having the pressure and the feeling of accomplishment when doing a hard task.  
(Focus Group)

Interviewees also mentioned the confidence they gained through the YLT to seek professional and workplace opportunities that they didn't see themselves pursuing prior to the program. Of particular note are several interviewees' comments about the way in which they learned to apply specific skills in ways that are grounded in values and serving the community. Future inquiries should further explore this link between how developing an individual's skills can lead to structural change.

“ this isn't about just growing food either. Right? It's about creating this community of people where you feel welcomed and loved and safe, and that you're working together for this greater thing. This thing that's bigger than yourself. I learned crop rotation. I learned about plant spacing. And I learned about fertilizing. And I learned how to properly wash, and how to be a good sales person at the market. And how to have conversation with people. But that is not all that model is about. That is definitely a part of it. **Growing food is the foundation right. Growing food but it's, who are you growing food for? And what community are you a part of? And also learning a little bit about yourself and the values and the morals that you have.** So I think that those are the biggest things that I learned. But real, tactical, tangible things (...) **I remember talking to Uncle Gary about how to actually be a farmer. Right. And the things that you think about as a farmer. But in the same breath, who you're supporting as a farmer and what it really means to grow food for a community.**” (Interview Cohort 12+)

“ Even my talking, I was super shy before but now because of the different opportunities to talk to people that they placed me in, presentations, talking to the people that donate to us or partnerships that we have because they are all top dog people. (...) MA'O actually puts you in these positions. **I would not say they throw you in the water and now you are going to swim, but that is basically how it is.** They will be like, "Oh, can you talk to this person and they are actually they want to know about our youth because and that is it. They also share your story." So that is kind of the times where it is you kind of step up, **even the roles specifically on a farm, we have to step up. I feel like we are kind of pushed out of like our comfort zones to actually continue to grow and in that process we learned a lot of different skills.** (Interview Cohort 12+)

There also appears to be a strong relationship between the skills and education alumni learned from YLT and the hopes that they have for future generations. Interviewees articulated this connection between the skills they acquired and the hopes they have for future generations in several areas, including: treating others with love and respect, growing local sustainable food, and having a strong work ethic. This again points to the possibility for individual skill building to lead to systemic, intergenerational change.

“ So we had the work ethics, health and fitness. Oh, culturally, that was another big one. I always was connected with my culture, but not as much as I was until MA'O, probably because maybe I was younger or something. (...) But when I got into MA'O and I started being around it more often started hearing it every day. Learning new things, being exposed to all of that stuff or **actually going hand in hand with the cultural stuffs too. Not hand-in-hand, hands on. Then that helped me connect more. And that definitely impacted my life because I see things differently now. I see more to the world. I'm not just tunnel visioned with everything. And so that definitely impacted me that way, and it impacted me on how I want to raise my future kids, my family.**” (Interview Cohort 12+)



## Careers & Meaningful Work

We anticipate that the academic degrees attained by YLT participants will lead to more satisfying work with higher wages. In addition, we expect that the skills and knowledge accrued during the YLT will be valued in the workplace, and that alumni will serve in positions of leadership. While some of the skills learned at MA’O are specific to farming (and specific to creative media in the DMED track), many other skills such as leadership and entrepreneurial literacy, are transferable and relevant in any field.

Through this survey design and analysis process our understanding of what “sustaining careers” means has evolved substantially. The alumni survey has constructively complicated our perspectives and assumptions about how financial stability, opportunities to lead and mentor, and work that serves the community are all vital elements of meaningful work.

### Questionnaire Findings

**MA’O’s hypothesis that YLT alumni will work in “community-enriching, community-serving” professions and positions was supported by the questionnaire data, with 66% of respondents currently serving in such roles.** See the breakdown in Table 14, which reflects alumni’s most recently held position (current as of October 2020).

Table 14 YLT Alumni Careers in Community-Serving Sectors

	Social services, community nonprofit	Mental & Physical Health	Food & Agriculture	Education	Public Service	Self-employed (entrepreneur)	TOTAL
Number of respondents	6	3	24	4	2	2	41
Percent of respondents	10%	5%	39%	6%	3%	3%	66%

This analysis was based on the details that alumni provided about their three most recent jobs, including employer, position title, duration of employment, and wages. We identified and coded for seven community-enriching sectors: community-serving social services/community nonprofit; mental and physical health; food and agriculture;<sup>23</sup> education; public service; self-employed (to reflect entrepreneurial emphasis of the YLT); and conservation. While some jobs were coded under multiple sectors, they were then filtered to identify a single primary sector. Notably, for this survey participants understood ‘job’ to be any role that received financial compensation. Future inquiries will differentiate between paid internships and staff/employee positions.

We note in particular the 39% of respondents who are serving in the food and agriculture sector. Here we caution that the composition of the questionnaire respondent group may be skewing these results somewhat, as 48% of the respondents continued in a post-YLT role at MA’O (another internship, apprenticeship, or staff role), compared to 15% of the total alumni population. This indicates this group’s disproportionate interest in the food and agriculture sector, which we see reflected in the high percentage of questionnaire respondents pursuing careers in this field. As noted earlier, the ongoing MA’O expansion has presented a greater number of such post-YLT opportunities since 2018. This may therefore also suggest that as these positions open up in Wai’anae there is an overall increase in the number and percentage of individuals pursuing careers in food and agriculture at MA’O and beyond. Future inquiries are required to further explore these nuances.

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<sup>23</sup> Included all alumni working in restaurants/fast food if they are involved in food prep.

Finally, though we were interested in whether alumni work in the community of Wai‘anae, the questionnaire did not ask for the geographic location of their workplace, and so did not allow for this analysis. And though duration in employment is also of interest, this analysis has been reserved for future inquiries.

### Interview & Focus Group Findings

Alumni’s experiences with meaningful work were explored further in the one-on-one interviews. **17 of the 21 interviewees identified having meaningful work and/or described how they find meaning in their work.** Analysis of the interviews revealed clear intersections between alumni’s source of meaning, their connectivity to community, and their description of the YLT experience and skills they accrued in the program.

The interviewees consistently explained that community adds meaning to their jobs. Nearly half of the interviewees find meaning in their jobs because they are supporting community either through education, advocating for youth, providing housing, or having relationships with the community. A third explained that their jobs are meaningful because they are growing sustainable food that perpetuates culture, which they also connect to educating youth, building relationships, and/or building community. Notably, all of those expressed find meaning in growing food currently work at MA’O in post-YLT roles (HYLT interns, apprentices, and staff).

“*For me, being part of something bigger than myself is a meaning in life, like a life career, which is what I have right now. I am all organic farms, and this is a live career where I am properly using natural resources for the benefit of humankind and enforces culture. We are indigenizing the mindset and instilling it in the youth of a community that was frowned upon for many many decades in Waiānae. Soldier them up in the railroad where they will eat you alive. Being a part of something that uses organic agriculture as a venue, checks all the boxes of the greater good than just oneself. Plus, it is hard work. At the end of the day, I really get satisfied with the hard work.*” (Interview Cohort 12+)

Interviewees also described cultivating community in their work in ways that reflect the skills that they developed while in the YLT, including interpersonal growth, communication, offering support, growing food, and developing a sense of community. Future analyses regarding work outcomes should delve deeper into how skills learned in the program are being applied on an ongoing basis at work and at home.

Of the four (19%) interviewees who did not address or were not asked about meaningful work, one chooses to be a stay at home mother and finds meaning in her children and volunteering; the other three are in college, one of whom finds meaning mo‘olelo/storytelling and community, one in relationships, and the other in writing. One of these interviewees, who finds meaning in God, said that while she doesn’t have meaningful work, she makes meaning out of her work.

One of the ‘ohana dialogue focus group prompted a discussion amongst several alumni who do **not** find their current work meaningful. One of the participants instead finds meaning in volunteering with a community feeding project (see discussion regarding volunteering on p. 70). Another described being on an ongoing journey to discover meaningful work, and along the way finding ways to build meaning with community:

“*At the time that I was working at MA’O, I had no idea what I wanted to do. lots of ambitions, but couldn't decide. And that's kind of why I didn't succeed, just not enough... Well, for me, just guidance in where I was going to go as far as meaningful work. And even now, I'm definitely not living my dream job, or anything like that, but I'm still discovering that path actually. (...) I think doing maybe work that it's not your dream job, but still learning how to be happy, I think is everyone's goal, just being able to survive, but be happy with the people that you surround yourself with. Again, being a part of communities and giving back.* (Focus Group)

Several interviewees touched on the factors that made it easier or more difficult to find meaningful work: two mentioned that the University of Hawai'i at West O'ahu Sustainable Community Food Systems degree inspired their career choices, one mentioned that the social network developed through MA'O was helpful, and one's family owns a business, while one interviewee mentioned the obstacle of a very long commute time.

As the survey participants are in their early careers (questionnaire respondents' average age was 27 and the interviewees skewed slightly younger), we also asked interviewees about their future career aspirations. **The vast majority of interviewees articulated specific career aspirations, and had plans in place to fulfill their goals. Their career choices represent a wide variety of particular job preferences, but reflect a clear interest in education, health (broadly defined), and community-serving roles.** Desired careers included: teacher, professor, social worker, police officer, fire fighter, vocational rehab counselor, and healthcare worker. Outliers want to work in careers related to business and interior design.

### Leadership

Given the leadership emphasis within the YLT program, we expected that alumni would be serving in leadership roles in their places of work, as indicated by title/position. However, it was difficult to ascertain leadership using the titles provided by respondents. In future, a simple question regarding supervisory responsibilities should be asked. It was also anticipated that alumni would serve as leaders in their work, regardless of their position or title.<sup>24</sup> To get at this more nuanced perspective of leadership, alumni were asked whether they considered themselves to be or have been a leader in any of their past three jobs, regardless of their title or position.

### Questionnaire Findings

**84% of alumni respondents considered themselves as a leader**, while 8% did not and 8% did not respond to this question. The majority described this as leading, teaching and mentoring others, while others identified servant leadership and taking initiative. Table 15 breaks down the leadership themes that emerged from open-ended responses on the questionnaire.

Table 15 YLT Alumni on What Leadership Means

Leadership Theme	Number of Respondents	Percent of Respondents
Leading others	27	51%
Teaching	11	21%
Servant leadership	6	11%
Taking initiative	6	11%
Other	5	9%

*I have always seen myself as a leader in the community because I enjoy serving individuals and families everyday. I also like to share my knowledge and wisdom with the next generation of leaders.* Theme: Servant Leadership (Cohort 1-5)

*I don't like waiting around for orders to be given. I am proactive and will take the lead if no one is stepping up.* Theme: Taking Initiative (Cohort 6-11.5)

*I enjoy the feeling of teaching others. By helping them to learn the process in the best, and smartest way possible.*

Theme: Teaching (Cohort 1-5)

*I take the initiative to get things done and help others to solve their problems. I feel reaffirmed when coworkers seek my assistance and knowledge as it shows they trust and are confident in me.* Theme: Taking Initiative (Cohort 1-5)

*I was able to be in a position in which I could influence and inspire others to achieve more and seize the opportunity.*

Theme: Leading others (Cohort 6-11.5)

<sup>24</sup> Alumni leadership, meaning, and purpose outside of the workplace are explored in the Community Connectedness section, pp. 63-73.

## Interview Findings

The interviews echoed and expounded on the self-perception of leadership shared by questionnaire respondents. As noted above, many interviewees noted leadership as one of the primary skills they developed while in the YLT, and discussed their application of this skill in their current work.

“

*I learned from MA'O, the main thing that they always carry over is the love, respect, and the willingness to work. That's one of their biggest ideals there. You've got to come with the love, and you have to be respectful to yourself, to your peers, to the place that you're always coming into. Then you have to be willing to put in that hard work, too, if you want to be successful. It starts with yourself and doing what you can. I used to say this a lot when I was at the farm for the younger peers, it's, "You can't do what you can't see." You cannot ask somebody to be a leader if they don't know what a leader is supposed to look like. In that aspect, you need to perpetuate all of those aspects of a leader so they know exactly what you mean when you tell them, "Yes. I need you to be a leader. I need you to step up and to take on that responsibility." (...) To people who don't know it, you cannot ask them to be a good man if they don't know what a good man is supposed to look like in their life. You cannot ask them to be that leader or that role model if they don't know what that looks like. You have to teach them what that looks like." (Interview Cohort 1-5)*

## Wages

The household income for YLT participants provides important context for this analysis of alumni wage outcomes. The average annual household income for the youth's families in the 2019 cohort of Summer Ramp Up interns (which is representative of past cohort demographics) was \$76,764, with a household size of 5.3.<sup>25</sup> This yields a per capita income of \$14,467, which is below the community average of \$18,944 (Wai'anae) to \$21,104 (Ma'ili), and just 45% of the statewide per capita income of \$32,511.<sup>26</sup>

## Questionnaire Findings

Alumni were asked on the questionnaire to provide their current household income; 49 respondents provided this information.<sup>27</sup> There are too many confounding variables in household income for it to be a useful gauge of individual alumni wage or financial well-being outcomes; for example some alumni still live with their parents, while others are living solo, and still others have started families of their own. Given this, alumni household income noted in Table 16 serves merely as a contextual indicator. Of particular note: 20% of alumni have a household income of less than \$25,000.

Table 16 YLT Alumni Household Income

Income range	Total
Less than \$25,000	20%
\$25,001 to \$50,000	10%
\$50,001 to \$75,000	24%
\$75,001 to \$100,000	20%
\$100,001 to \$125,000	12%
More than \$125,000	12%
<b>Total</b>	<b>100%</b>

Alumni wages were assessed based on the details provided for their most recent job; annual and hourly earnings were normalized. In the case of hourly wages, this required assuming full-time hours, though this may not be accurate for all individuals. Future analyses of wages should gather cleaner earning data to allow for more robust conclusions.

<sup>25</sup> MA'O administrative data, derived from tax returns or W2s provided by interns upon entry to the SRU program.

<sup>26</sup> US Census Bureau

<sup>27</sup> One of the focus group participants pointed out that they did not know the income of others in their home, so they did not know how to answer this question. We anticipate that other respondents faced the same challenge with this question.

We anticipated that higher degree attainment would yield higher wages, as is evidenced in census data for the general population in Wai‘anae and elsewhere. However, a comparison of alumni wages for those with and without the associate degree revealed no statistical difference between the two and did not sustain this hypothesis (Table 18). We also expected that wages would increase with alumni’s age; this was borne out, as shown in Table 17.

Table 17 YLT Alumni Wage by Degree Attainment

Degree Attainment	Mean Hourly Wage
Non-Associate	\$18.80
Associate or higher	\$18.40

Table 18 YLT Alumni Wage By Cohort (Age)

Cohort Group	Mean Hourly Wage
1-5	\$19.31
6-11.5	\$19.00
>12	\$15.40

Given alumni’s higher degree attainment compared to their peers, it was expected that alumni would have higher wages than average for their peers in the Wai‘anae community. Unfortunately, it was not possible to do an analysis with a similar peer group, as the census does not break down wages by age. The only comparison that was possible is against the mean individual (nonfamily) wage for the full Wai‘anae population (see Table 19). While (annualized) alumni wages are lower than the Wai‘anae mean, it is difficult to determine whether this is driven by the relatively low age of the alumni (average 27 years old), or some other factor(s). The alumni’s career choices also posed an interesting complicating question; how does the high percentage of alumni working in nonprofit, food and agriculture, education, and public service sectors impact earnings?

Wage and earning outcomes remain an area for fruitful study in future analyses, with much learned from the process in these initial survey and interview responses. In particular, we are eager to explore how YLT-enabled networking and relationship building enable access to meaningful and remunerative work, as well as how Wai‘anae’s relatively rural nature and the work available within the community impact earnings and professional choices.

Table 19 YLT Alumni vs. Wai‘anae Earnings

	Alumni Average Earnings	Wai‘anae Mean Earnings
Annual wages	\$ 38,609	\$ 48,114

### Focus Group Findings

In one of the ‘ohana dialogue focus groups several alumni participants pointed out that they found the questions about household income and wages in the questionnaire to be reductive, and not representative of their own understanding of their socioeconomic status and worth to their families and communities. They pointed out that a sole focus on financial outcomes was also not reflective of the values that they had developed while in the YLT.

“*one of the questions was about my household income. And I don't know how everybody else feels about it, but I just feel that MAO gave us something that's a little bit deeper than a household income. (...) We wouldn't measure our socioeconomic status based on our household income. I think we have a much richer sense of worth within our community, within our families. And then just within the greater economic scheme of things, based on what we learned from MAO.* (Focus Group)

“*I think that's the one thing that I really took from MAO was: you have to work for what you want and your worth is more than what you bring in, in cash. What you can provide for your family, doesn't just come from money. I think that's what I would like to expand upon and the socioeconomic portion of the questionnaire.*

(Focus Group)

## COVID-19 Impacts

It is noteworthy that the survey was deployed in the fall of 2020, which was a period of very high statewide unemployment, driven by the COVID-19 crisis (14% in October 2020).

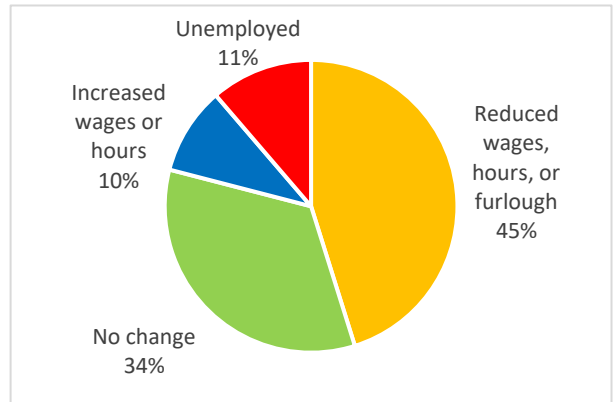
### Questionnaire Findings

When asked if and how the pandemic had impacted their employment, questionnaire respondents reported mixed impacts: 11% lost their jobs; nearly half had reduced wages or hours, or had been furloughed; 34% reported no impact; and 10% were working more hours or receiving higher wages (Figure O).

### Interview Findings

None of the 21 interviewees experienced job loss due to the pandemic. Out of the eight people who reported a change in jobs or hours, six people are working more hours, while two people found new jobs. Nine people talked about how a change in their social and family life has been difficult and six people describe having less local food access due to their local farmers' markets being closed. Other affects included adjustments to job duties or new COVID protocols at work and change in daily activities, mainly being more time spent on the computer. More than half of interviewee discussions regarding COVID impacts reflected individual resiliency, with eight reporting having had a positive shift to their mindset and three describing making an effort to purchase local food in response to the pandemic.

Figure O COVID-19 Impact on Alumni Employment



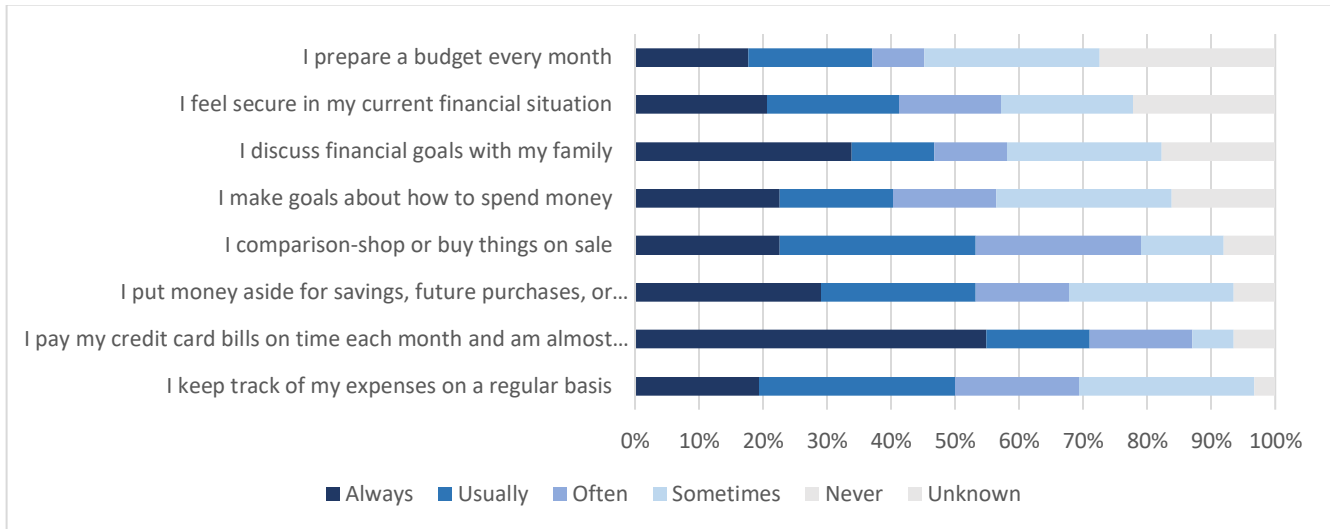
## Financial Literacy

Over the years YLT program participants have received a range of financial literacy training and experiences, making it difficult to generalize results for the total alumni community. One thing that all interns have in common, however, is that they all received stipends in return for their sweat equity in the enterprise. For many, this was the reason to open their first bank account, which is an important step toward financial independence, as well as financial literacy. Several cohorts also received matches to their personal savings that could be used towards certain school related purchases, but this Individual Development Account (IDA) program has not been available for all cohorts (depends on external funding). Financial literacy has emerged as an area for future curriculum development; this inquiry represents our initial attempt to engage with the topic systematically.

### Questionnaire Findings

Financial literacy is not a standardized metric; for the purposes of this analysis the alumni's financial literacy was measured using eight indicators (see Figure P). As our work in this area evolves, we will look forward to developing more sophisticated assessments of financial literacy. In this initial inquiry, 60-80% of respondents selected often or better for four categories, including: keeping track of expenses on a regular basis, paying credit card bills on time, putting money aside for savings, future purchases or emergencies, and comparison shopping. Meanwhile, 45-60% selected often or better for the remaining activities: making financial goals, discussing those goals with family, feeling secure in their current financial situation, and preparing monthly budgets.

Figure P YLT Alumni Financial Literacy



### Interview Findings

Several alumni relayed their experience with financial stress and financial decision making. This participant reflected on the evolution of their financial choices during the internship and since, and connected the concepts of financial literacy, personal health, and food sovereignty:

“*[During the YLT] I spent my money on other people all the time or [I bought] a lot of Taco Bell and McDonalds. I am not going to lie. Even working at MA’O, I have really loved their chicken bacon ranch snacks wrap from McDonald’s. That was my addiction and I was at that young age where I was like, “Well, this is what I can afford.” (...) When we go to LCC, we go [out] for lunch and that adds up, too. My finances were still something that I was trying to learn and figure out. I think over the years as I have gotten older then I am like, “Why am I buying other people alcohol? I do not even drink. They can buy their own if they want to have these bad habits.” So I cut that out and I replaced it with buying food. But at least now when I am buying food, I am more conscious of, okay “Where is it going? Who am I supporting? Am I supporting these big companies or am I supporting a small local farmer?” And that is why I tried to look at the farmer’s market here to see if I can support local farmers.* (Interview Cohort 1-5)

### Public Benefits

As we anticipated that YLT alumni would experience positive career and wage outcomes, we further hypothesized that they would have less need than their peers to access social safety net public benefits. To explore this expectation, alumni were asked about their use of three public services: unemployment benefits, Medicaid (QUEST), and the Supplemental Nutrition Assistance Program (SNAP). Alumni usage rates are compared to Wai’anae and Statewide usage in Table 20.

### Questionnaire Findings

As noted previously, the survey was deployed when the COVID-19 pandemic was significantly impacting the Hawai’i economy and unemployment figures. While only 3% of alumni reported accessing unemployment benefits compared to 14% of the statewide population, this is at odds with the 11% who reported having lost a job due to the pandemic (p. 46). This suggests that while alumni were slightly less likely to be unemployed, those

who had lost a job were substantially less likely than the general population to claim unemployment benefits than the statewide population.

Alumni reported usage of SNAP and Medicaid were also slightly lower than statewide enrollment figures and substantially lower than the Wai‘anae community. However, these comparisons may be complicated by the age of participants. For example, alumni under 25 are still eligible to participate in their parents’ healthcare plans, and those still living with their families might be in households receiving SNAP benefits. We found no age-specific data points for public benefit usage that could be used to disambiguate these findings. Later in the report we discuss the alumni’s food (in)security compared to the LCC student population (pp. 60-63). These result appear to coincide with the alumni’s lower usage of SNAP, but further analysis is necessary to draw any firm conclusions.

Table 20 YLT Alumni Use of State Benefits vs. Population

Public benefit	YLT Alumni	Wai‘anae	State of Hawai‘i
Medicaid (QUEST)	21%	32% (individuals)	27%
Supplemental Nutrition Assistance Program (SNAP)	11%	34% (households)	12%
Unemployment benefits	3%	Data not available	14%*

\*Unemployment rate in October 2020

### **Incarceration**

According to the Office of Hawaiian Affairs, “the disparate impact of the criminal justice system on Native Hawaiians is apparent at every stage of the criminal justice system, starting from arrest and continuing through parole. The impact is cumulative, starting with a relatively small disproportionality at arrest, but revealing itself to be more distinct at sentencing and incarceration.”<sup>28</sup> These disparities are reflected in a disturbing intergenerational cycle of incarceration in the Wai‘anae community. YLT interns reflect this tragic reality; nearly half of alumni respondents reported having a family member who has been incarcerated (see Figure Q). Future inquiries into family experiences with incarceration should differentiate between felonies and misdemeanors and explore the connection between felonies and household income.

MA‘O anticipates that participation in the YLT, with the associated post-secondary education, cultural grounding, empowerment, and mentorship, will help to disrupt the destructive cycle of incarceration. However, we note that any positive effect at the individual level may still be undermined by the systemic racism evident in sentencing disparities.

### **Questionnaire Findings**

In the questionnaire alumni were asked about their direct experience with incarceration since the YLT. While 72% of alumni reported that they have not been arrested and/or incarcerated since leaving the YLT, 21% indicated that they have been in jail since the YLT. Notably, none of the alumni reported having been convicted of a felony or misdemeanor. (See Figure R.) Incarceration outcomes is a topic of ongoing interest; the survey process has prompted us to learn more about future interns’ familial experience with incarceration, to further develop our understanding of this critical issue.

<sup>28</sup> [https://www.oha.org/wp-content/uploads/2014/11/factsheets\\_final\\_web\\_0.pdf](https://www.oha.org/wp-content/uploads/2014/11/factsheets_final_web_0.pdf)



Figure Q YLT Contact with Incarceration

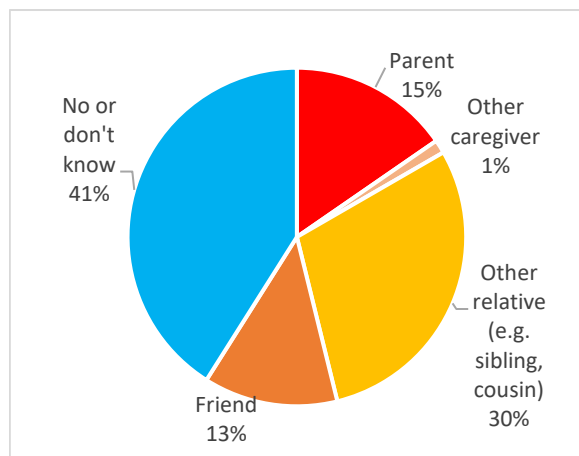
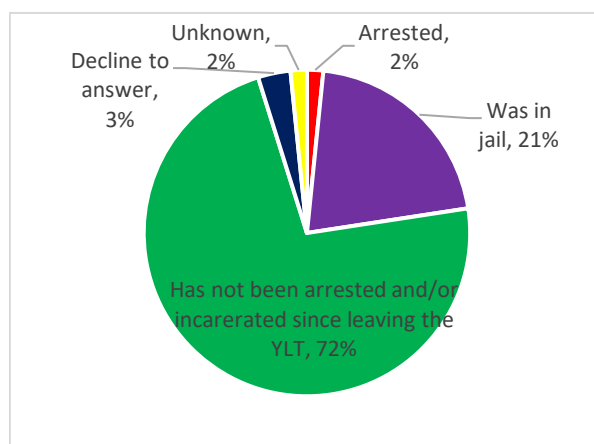


Figure R YLT Alumni Post-YLT Incarceration



As noted above (p. 38), our exploration of the use of public benefits and experience with incarceration ties in with the potential for using social impact bonds or other policy mechanisms that measure societal cost avoidance to justify investing in youth capacity building and education. We remain very cautious about such an approach, given the mixed picture that has emerged from early efforts with social impact bonds.<sup>29</sup>

### ***‘Ohana Well-being***

As noted earlier, we expect that the YLT experience has substantive impact beyond the individual intern, at the level of interns’ friends, families, and social networks. This effect was noted above in alumni’s reports of their families’ evolution during the YLT program itself, and in interns’ influence on others’ pursuit of college degrees (pp. 35-37). The whole area of alumni ‘ohana outcomes is ripe for more nuanced exploration in future analyses. Here we we note that in the interviews several alumni shared their perspectives about the connectivity across past, present, and future generations.

### **Interview Findings**

“*Yeah, I think like everything I do now is definitely for the next generation, generations to come. I think that is one of the foundations of like MA’O and stuff. With sustainability and just being able to feed like our children and feed our community. It is the same thing. It is so funny how everything [...] always comes back around. But definitely like now, I think at the age I am at. Because I do want children, but just all the decisions and choices that I do make are definitely something I definitely want to leave something good behind. You know, I [don’t] just like money. You know, not materialistic type of things but things that actually have meanings and things that actually stick. That has definitely been a motivation of mine for sure I think.* (Interview Cohort 1-5)

<sup>29</sup> “Narratives of promise, narratives of caution: A review of the literature on Social Impact Bonds.” *Social Policy & Administration*. June 2016. [https://s3.eu-west-2.amazonaws.com/golab.prod/documents/Narratives\\_of\\_Promise\\_Narratives\\_of\\_Caution-\\_A\\_Review\\_of\\_the\\_Literature\\_on.pdf](https://s3.eu-west-2.amazonaws.com/golab.prod/documents/Narratives_of_Promise_Narratives_of_Caution-_A_Review_of_the_Literature_on.pdf) (accessed April 21, 2021)

“  
*[in the YLT], we talked a lot about our ancestors. (...) I never thought of that until I went to MA'O and understand the whole process of why our ancestors are important. Like, they were doing all this stuff that we learning about now is important, (...) I need to do the same (...) by helping others. That is something that I can do is doing the same by just planting and doing other things that I know it is good for the next generation (Interview Cohort 12+)*

In the realm of ‘ohana outcomes one point of interest is the age at which YLT interns (particularly women) have their first child. Children are a source of tremendous personal, familial, and communal joy, and well-being, as well as a sense of purpose and meaning. Childbearing is also intimately bound up in complex and intergenerational relationships between education, economic opportunity, and wage penalties (again, particularly for women). Most critically in the context of the YLT: over the years we have observed the additional financial burden, time pressure, and conflicting kuleana (responsibilities) experienced by youth caring for children of their own while attending college. As noted in the discussion below (pp. 74-76) regarding attrition, the three respondents who identified needing more childcare support while in the program left prior to attaining an associate degree, and have not graduated since leaving the program. Though MA’O administrative data does not comprehensively account for whether interns had children while in the YLT, a cursory analysis of administrative records indicates that there is no significant difference in graduation rates between interns who had children while in the YLT and those who did not. We note here that though the YLT program does not provide direct services or support for students who are also parents, we do address these issues through partnerships and serve as a connector or bridge between students and relevant institutional services and resources.

### Questionnaire Findings

Maternal age at first birth has significant impacts on the socioeconomic outcomes of both mother and child, and is heavily influenced by women’s college education attainment.<sup>30</sup> Given the YLT’s emphasis on attaining a college degree, we anticipate that alumni, particularly those who completed their associate degree, would have children at a later age than their peers without a college education. The Hawai’i statewide average age at first child is 25; we were unable to obtain Wai’anae specific data for this analysis. At present, the age of alumni at the birth of their first child is trending slightly younger than the state average (see Table 21). Ultimately, however, it is not possible to assess this outcome at present, given that only 19 of the 62 questionnaire respondents have had children thus far, and many are still less than 25 years old. We note this topic for future analysis, as the alumni community ages.

Table 21 YLT Alumni Age at Birth of First Child

Age at Birth of First Child	Number of Alumni Who Have Children	% of Alumni with Children
18 or younger	0	0%
19-24	12	63%
25-29	6	32%
30-35	1	5%

‘Ohana well-being is also greatly impacted by individual social, emotional, and physical health, which is discussed in the following section on Ola Outcomes and Health Status.

<sup>30</sup> <https://www.nytimes.com/interactive/2018/08/04/upshot/up-birth-age-gap.html>

## Ola Outcomes & Health Status

Ola, or holistic health, is defined here as the well-being of mind, body, and spirit. As noted previously, the OLA health pillar at MA'O is grounded in the provision of three inter-related resources: 1) 'ōhana (family) – the source of fundamental resources for optimum social and economic well-being; 2) lōkahi – the origin of the values base for optimum spiritual, cultural, and emotional well-being; and 3) 'āina – natural resources that yield physical sustenance, self-sufficiency, and well-being. Many facets of ola, including cultural, social, and emotional well-being, have long been woven into the YLT experience. In particular, the reciprocal relationship between youth and 'āina, that which feeds, and the related concept and practice of food sovereignty, have been foundation to the YLT experience since MA'O's inception. The program provides an environment where fresh produce is celebrated, prepared, and eaten together; youth are also encouraged to take home surplus produce for free, increasing their access to and the affordability of healthy food. YLT participants are supported through curriculum and mentorship to develop agency vis-a-vis their personal and family health, and to build self-awareness and develop practices that improve their emotional and mental well-being. In recent years (since cohort 12), the YLT curriculum has evolved to more explicitly engage with ola and physical health, driven in part by the findings of the Maui Ola study (2017-ongoing).

As noted above, the Maui Ola study was initiated to explore the social/health impacts of YLT longitudinally by following participating YLT interns over the course of their internship. Through the study we gathered data about interns' food security, diet/nutrition, health-related behaviors, self-esteem, body mass index (BMI), and diabetes risk as measured by the blood biomarker hemoglobin A1C (HbA1C). Through this analysis we observed changes to specific, validated health metrics, focused on obesity-related outcomes. Preliminary results of the Maui Ola study affirmed that within a year on the farm, YLT participants experience statistically significant improvements to their physical health, particularly a reduction in their risk of contracting Type-2 diabetes.

The Maui Ola study raised a series of additional questions, particularly about the potential persistence of the social, behavioral and health impacts of the YLT program. These outcomes are of particular interest and significance in the context of very high incidences of preventable diseases and hunger prevalent amongst Wai'anae community members. In the following section we explore alumni ola outcomes, framed by the overarching question: **do the positive health impacts of the YLT experience persist for alumni after they leave the program, and, if so, how does this manifest?**

The methodology for this biometric analysis, including the self-reported metrics and biospecimen samples, is described in detail above (pp. 22-23). Recall that while there were DMED track respondents to the questionnaire, no DMED alumni provided physical samples; the A1C and microbiome analyses therefore include MA'O track participants only (see full demographic breakdown on p. 16-17).

At the outset of the alumni survey we were hopeful that we would find evidence of the durability of health outcomes for the alumni after their time in the YLT. However, we are also acutely aware of prevailing environmental, economic, social, and cultural conditions that could erode such gains. In sum, our analysis revealed a complex picture of alumni health, with evidence of persistent positive outcomes in areas such as vegetable consumption and BMI, but a comparatively high risk of diabetes. Moreover, the analyses based on biometric data were inherently limited by low rates of participation and small population sizes. Meanwhile alumni expressions of food sovereignty were very strong, and alumni food security was better than a peer group at Leeward Community College, but still far from ideal. We are left with many lingering and new questions to fuel future inquiries into YLT participants' long-term health outcomes.

## Holistic Well-being

### Questionnaire Findings

The first health-related item in the questionnaire was an open-ended question that asked alumni to share their own definitions of well-being. Upon coding their responses, we found that more than 60% of alumni shared definitions that included multiple dimensions, which we understand to reflect a holistic understanding of health. Another 10% of respondents articulated well-being in terms of being “healthy,” while 16% discussed the importance of happiness or self-care, foregrounding the role of mental and emotional well-being. See Table 22 for details.

“  
*Eating clean and three times a day with snacks in between. Getting at least a 30 minute exercise in your day. Getting up early and going to bed early to ensure a good nights rest. Being okay mentally and physically.*

Theme: being healthy (Cohort 1-5)

“  
*Your mental, physical, emotional and spiritual state is within a place of balance.*

Theme: holistic

Table 22 Alumni Perspectives on Health

Theme	Number of respondents	Percent of respondents
Holistic	33	63%
Being healthy	5	10%
Happiness	4	8%
Self-care	4	8%
Other	4	8%

“  
*Well-being to me starts with mental health. It's important to feel encouraged and optimistic about being healthy overall. Our minds are what controls us and we as humans never go a moment without having thoughts. Having some kind of community for mental support is crucial. Humans aren't made to do life alone. We need to be able to relate with others and communicate how we feel and what we are thinking. This way, we can learn from each other, help each other and come up with a solution to the many problems and issues this life comes with.* Theme: other/mental health (Cohort 6-11.5)

## Mental Health

Given the YLT program’s provision of wrap around support for youth’s total well-being, we anticipated that YLT alumni would exhibit stronger than average feelings of self-worth, and have developed strategies for dealing with setbacks. To learn about YLT alumni’s mental health, we included the widely validated Rosenberg approach to measure respondents’ level of self-esteem, using their self-reported answers to a series of specifically targeted questions.<sup>31</sup> We note here that programming has evolved more recently to emphasize social-emotional learning and to include practices grounded in trauma-informed care. However, as this has been deployed from Cohorts 12.5 and up, this is not directly relevant for the vast majority of the alumni population.

### Questionnaire Findings

Upon comparing the alumni and peer groups’ range of self-esteem values and the proportion of respondents in each self-esteem category, we observed that on average the alumni group reported a statistically significantly higher self-esteem than that of the peer group. (See Table 24 and Figure S.) Notably, we also observed a 6-fold higher proportion of individuals in the “high” self-esteem category among the YLT alumni than in the peer

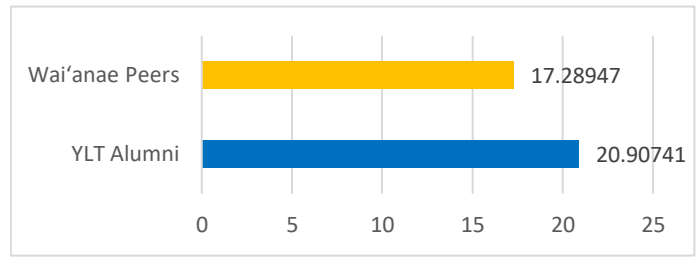
<sup>31</sup> Rosenberg's self-esteem scale - <https://www.norton.com/college/psych/psychsci/media/rosenberg.htm>

group.<sup>32</sup> These results indicate that the alumni group generally exhibit higher self-esteem than that reported among the peer group.

Table 23 YLT vs. Wai’anae Peers - Self-Esteem

Self-esteem Level	YLT Alumni (n = 62)	Wai’anae Peers (n = 157)
Low	16%	12%
Normal	52%	83%
High	32%	4.9%
Unknown	12	35

Figure S YLT Alumni vs. Wai’anae Peer Self-Esteem



The Rosenberg self-esteem scale: low (less than 15); normal (15-25); high (25-30)

We also asked alumni how often they experience feelings of sadness or depression (process note: in future these two states should be differentiated, and not collapsed into a single question). 28% of alumni reported being sad less than once a month, 11% about once a month, and 19% a few times a month. 27% of respondents reported being sad a few times a week while 6% reported being sad every day. 8% of individuals declined to answer. (See Figure U.) We then compared the 37% who reported being sad or depressed a few times a week or more with their Wai’anae peers, 35% of whom reported being sad or depressed.<sup>33</sup> This comparison indicates that alumni do not experience sadness at a statistically different rate than their peers (standard F-test) (see Figure T).

Figure T YLT Alumni Feelings of Sadness or Depression

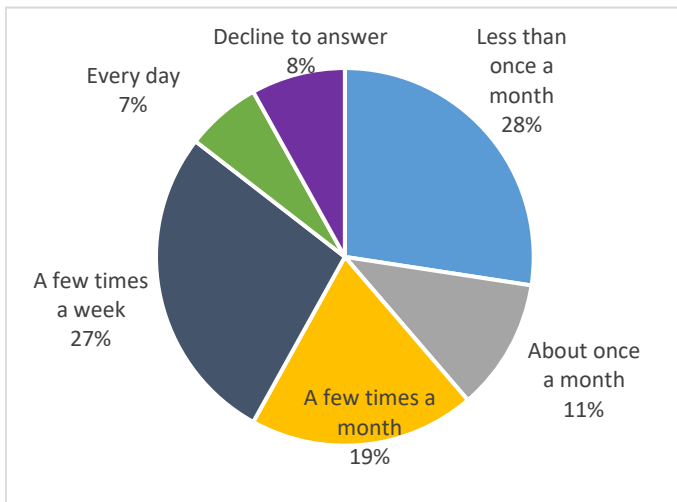
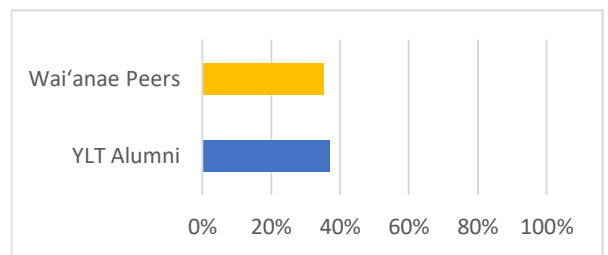


Figure U YLT Alumni vs. Wai’anae Peers - Feelings of Sadness or Depression



<sup>32</sup> In order to rule out the possibility that these differences might be due to the COVID-19 pandemic, we asked the alumni to respond to the same set of self-esteem questions with regard to their post-pandemic (October 2020) state, and their pre-pandemic state (using recall). On average, there was no significant difference between the participants self-esteem at present and before the pandemic.

<sup>33</sup> The Wai’anae peers were asked a “yes” or “no” question regarding depression/sadness; for this comparison, YLT Alumni reports of feeling sad or depressed a few times a week or more were counted as a “yes.”

## Health-related Behaviors

### Questionnaire Findings

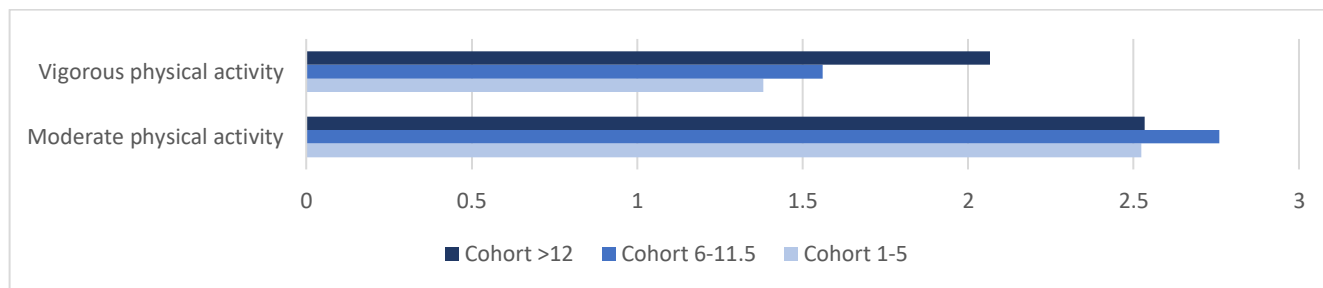
Alumni were asked several questions regarding health-related behaviors, including the degree and frequency of engaging in the following: physical activity (i.e. exercise), smoking, tobacco use, and alcohol consumption. While there were no significant differences in physical activity between the alumni and Wai‘anae peer group, we observed significantly lower consumption of tobacco and alcohol reported among the alumni compared to the peer group. (See Table 24.) These generally lower scores were consistent across all three groups of alumni cohorts, with no significant differences between them, indicating persistence of these behaviors over time. **Together, these data indicate that YLT interns maintain at least some healthier habits than those of their non-YLT peers.**

Table 24 YLT Alumni vs. Peer Health-Related Behaviors

Health-Related Behaviors	YLT Alumni (n=62)	Wai‘anae Peers (n=157)	Significance
Moderate physical activity	2.623	2.406	
Vigorous physical activity	1.623	1.716	
Tobacco use	1.836	2.378	***
Alcohol consumption	1.557	2.493	***

Interestingly, the younger group of alumni (C12+) reported statistically significantly higher vigorous activity than did the oldest alumni (C1-5), perhaps suggesting a decline in this physical activity over time. (See Figure V.) Given the proximity of the “young” group to the YLT, where intense physical demands are part of the YLT program, and the fact that many of these individuals are still working on the farm in post-YLT capacities, this result is perhaps not surprising and may serve as a control of our approach. This suggests an area for further study in future inquiries.

Figure V YLT Alumni Physical Activity, By Cohort



## Diet, Nutrition & Microbiome

We tentatively hypothesized that YLT alumni would maintain healthier diets than their peers in the Wai‘anae community, and in particular that they would eat more fresh fruits and vegetables, even years after leaving the program, given their exposure and access to fresh produce during the YLT. To test this hypothesis we used the validated Healthy Eating Index (HEI) employed in the Multiethnic Cohort Study (UHCC) to evaluate the diet/nutrition of participants based on their self-reported eating habits.<sup>34</sup> Based on preliminary data of the Maui Ola study and given MA‘O’s mission, we focused on the vegetable component of the HEI and created three discrete scores as follows: (1) “overall” vegetable intake (i.e. proportion of vegetable intake relative to overall

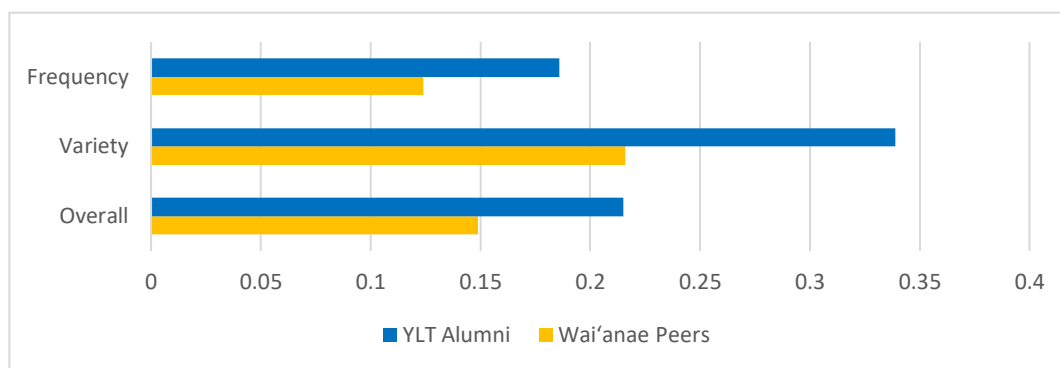
<sup>34</sup> The Healthy Eating Index-2015 (HEI-2015) was created to assess conformance of dietary intake with the Dietary Guidelines for Americans (DGA) 2015-2020. See: <https://pubmed.ncbi.nlm.nih.gov/29621192/>

diet), (2) “variety” of vegetables in the diet (i.e. proportion of specific vegetables comprising those consumed relative to overall vegetable intake), and (3) “frequency” of vegetable intake (i.e. proportion of how frequently vegetables are consumed relative to the overall diet). The overall proportion indicates eating behavior in general. The variety proportion indicates the variety vegetables in the diet. The frequency proportion indicates the frequency of vegetable consumption.

### Questionnaire Findings

For each of the metrics related to vegetable intake, we observed that the alumni exhibited significantly higher scores on average than did their peer group. (See Figure W - the index is an arbitrary value.) **These results suggest that YLT alumni tend to consume a larger proportion and variety of vegetables relative to their overall diet than do their non-YLT peers**, even after they no longer receive free produce from MA’O. Notably, there were no significant differences between the cohorts comprising the alumni group, potentially indicating persistence of this relatively higher vegetable intake among YLT interns.

Figure W Vegetable Consumption - YLT Alumni vs. Wai’anae Peers



By comparing gut microbiome metrics with that of self-reported vegetable consumption (a proxy of fiber intake), we observed that the relative abundance of the *Actinobacteria* phylum significantly negatively correlated with two independent metrics of vegetable consumption (relative proportion of vegetables in the diet and frequency of vegetable consumption in proportion to other dietary factors). This comparison was done using the fecal samples donated by a subset of Alumni participants (n=17). We observed that the relative abundance of the *Actinobacteria* phylum significantly negatively correlated with two independent metrics of vegetable consumption (**variety** of vegetables in the diet and **frequency** of vegetable consumption in proportion to other dietary factors; see Table 25) In other words, higher self-reports of vegetable consumption correlated with lower populations of *Actinobacteria*, which is consistent with prior studies that demonstrate low fiber intake results in enrichment of certain bacteria of the *Actinobacteria* phylum.<sup>35</sup> The results corroborated participants’ self-reported vegetable intake score using their agnostic gut microbiome data. **The comparison therefore suggests that alumni’s self-reports were an accurate measure of their vegetable intake, overall diet, and nutrition.**

Table 25 Negative Correlation Between Vegetable Consumption & Actinobaterica Populations

Variable 1	Variable 2	Correlation	Statistic	p value	Method	p Significance
Actinobacteria	vegetable intake - variety	-0.62	1324.874	0.00747	Spearman	***
Actinobacteria	vegetable intake - frequency	-0.69	1382.123	0.00201	Spearman	***

<sup>35</sup> Gut Microbes. 2018;9(3):189-201. doi: 10.1080/19490976.2017.1406584. Epub 2018 Mar 13.

Table 26 Health Metrics for Respondents Who Provided Stool Samples

	Alumni with Microbiome: N= 17
Age	27.4 (5.2)
Unknown	0
BMI results	29.1 (7.1)
BMI category	
Normal	5 (33%)
Overweight	2 (13%)
Obese	8 (53%)
Unknown	2
A1C results	5.86 (1.05)
Unknown	2
A1C category	
Normal	8 (53%)
Pre-diabetes	5 (33%)
Diabetes	2 (13%)
Unknown	2
Race	
Asian	0 (0%)
NHPI	8 (57%)
Other	4 (29%)
White	2 (14%)
Unknown	
Vegetable Consumption	
Veg.diet	0.222 (0.026)
Veg.variety	0.346 (0.020)
veg.frequency	0.191 (0.032)

Table 26 shows the characteristics of the 17 individual Alumni participants who provided fecal samples for gut microbiome analyses. Note that mean values and standard deviations of each metric listed are indicated in the table. BMI and A1C categories are based on the clinical parameters mentioned earlier. Metrics of vegetable consumption, as well as self-esteem results and category listed are as described earlier.

### Interview & Focus Group Findings

In the interviews we further explored if and how the YLT impacted alumni’s families’ health and well-being. Though we did not ask explicitly about dietary changes, close coding of responses revealed that 20 of the 21 interviewees discussed diet changes. **17 of the 21 interviewees spoke about positive personal diet changes driven by the YLT, and more than half reported that their families had experienced positive diet changes.** An additional two interviewees reported that they and their families didn’t change their diet, but that they already ate a healthy diet prior to the program. Many interviewees and ‘ohana dialogue focus group participants directly attributed their own and their families’ increased vegetable consumption to what they learned in the YLT.

“ (...) while I was a part of the YLT, my dad had a lot of health issues. (...) he wasn't able to stay healthy, so I was able to, here and there, put healthy foods within him and then I could see the process actually working. So then I would explain to him, oh I put a vegetable in, so it's better on your health. And then he, here and there he would start understanding why I did that kind of stuff and his health actually went up. So, I think that's one of the big things that the YLT actually helped me with. (...) **He lost a lot of weight because I tried to keep unhealthy stuffs away from me and my family.** I mean, it's not, can't get rid of everything but there're some things that doesn't have to be there. (Interview Cohort 12+)

“ before MA’O, I was [unhealthy]. And now, it's like, okay, now, I want to eat healthier. **Make sure that my future kids are going to eat healthier, because I don't want the same health problems that my family has, to go down the line.** So if I can help that, that's awesome. And I learned all of that through MA’O. (Focus Group)

“ [in] my second year they started making snacks. So **it teaches the interns how to incorporate the vegetables and how to cook with it.** (...) It's only the healthy people that know what [the vegetables are], but us local peoples were like, what's a radish, what's a beet, how do you cook with it? And once we eat it... If we eat it raw, it's disgusting. **But the snack has helped incorporate to eat it in your meals. And working at every farmer's market I've been able to ask customers how they eat it, how they cook it. So whatever they tell me, I just cook it for my family and then everyone's like, Oh, this is good. And a majority of the meals it's like an 80 percent vegetables. I barely use meat now. So it helped change our diet.** (Focus Group)



## Body Mass Index

Body mass index or BMI (kg/m<sup>2</sup>) is a measure of risk for obesity that is calculated as the ratio of body weight (in kg) and height (in m<sup>2</sup>). BMI can be categorized based on risk for obesity as follows: normal (below 24.9), overweight (25-29.9), and obese (more than 30). The initial Maui Ola Study results have not indicated significant change in body mass index (BMI) during the course of the internship. While we did not have a particular hypothesis regarding BMI outcomes for alumni, this metric is a key health indicator and correlates with diet and nutrition choices that we do expect to be impacted by participation in the YLT.

### Questionnaire Findings

It is important to note that height and weight from the alumni group were self-reported, unlike that collected from the Peer group participants which were facilitated by researchers. Interestingly, we observed that the overall average BMI among the YLT alumni was significantly lower than that of the Peer group. In addition, we observed a higher proportion of individuals with normal BMI concomitant with a lower proportion of obese individuals in the alumni group compared with that of the peer group. (See Figures X and Y.) **This suggests that the overall risk of obesity is lower among individuals that participated in the YLT compared to non-YLT participants in the same community.**

Figure Y YLT Alumni BMI

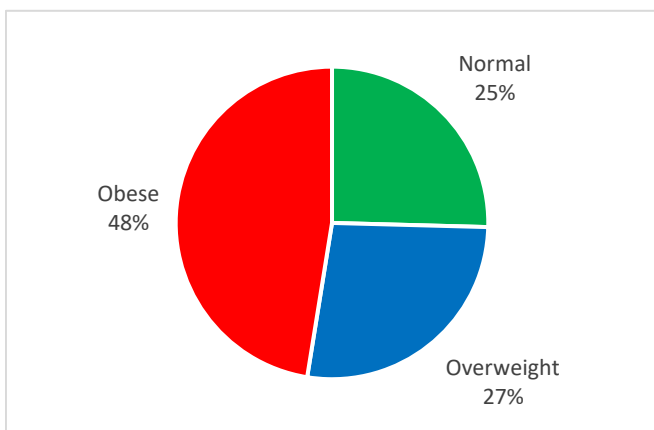
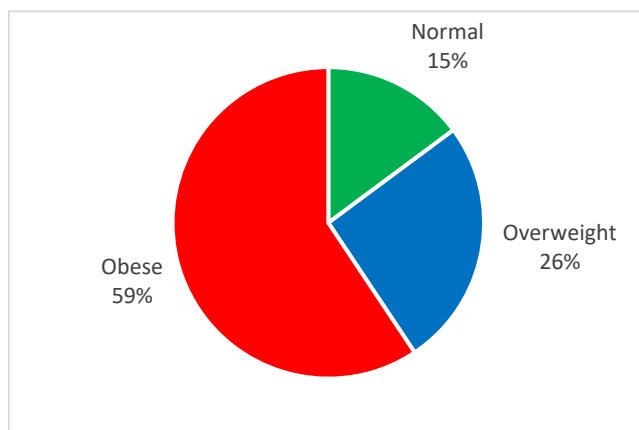


Figure X Wai'anae Peer BMI



No statistically significant differences in BMI were observed between the alumni cohorts, which potentially indicates persistence of this generally lower BMI over time. However, we do see a slight deterioration of BMI results (an increase of BMI with age and length of time since participation in the YLT) for members of earlier cohorts. On average the BMI results from the older cohorts (1-11.5) trends towards the average seen amongst the peer group (see Table 28).

Table 28 YLT Alumni BMI Over Time & Vs. Wai'anae Peer

	Cohort 1-5	Cohort 6-11.5	Cohort >12	Wai'anae Peers
BMI	32.22	32.72	28.81	33.41
n	21	24	14	155

Key method: Pair-wise t-test

## Diabetes Risk

Given the promising Maui Ola Study data regarding reduction of diabetes risk (as measured through A1C results) during the YLT, we were tentatively hopeful that YLT alumni would continue to demonstrate lower rates of diabetes and pre-diabetes compared to their peers in the Wai'anae community.

The percentage of Hemaglobin A1C measured in the blood corresponds to the level of glucose metabolism and overall glycemic control. The level of A1C has become an important biomarker of type 2 diabetes risk, which can

be categorized as follows: normal (below 5.7%), pre-diabetes (5.7-6.4%), and diabetes (6.5% or higher). Using fingerstick measures of blood levels of A1C, we examined differences between the YLT alumni and peer group participants. It is important to note that a subset of Alumni participants (n=22) opted to have their A1C measured. Thus, we adjusted the peer group (n=139) to control for age and gender differences in order to match with this subset of alumni.

### Questionnaire Findings

In fact, we observed significantly *higher* A1C levels on average in the alumni group compared to their age/gender-balanced, non-YLT Wai‘anae peer counterparts. (See Figures Z and AA.) We also observed that the proportion of individuals considered pre-diabetic and diabetic based on A1C was higher among the Alumni group than that of the Peer group by approximately 30%. These results conflict with the BMI results discussed above. This may be partly attributed to the 65% reduction of sample size (from 59 reporting their BMI to 22 participants reporting A1C results). This limited data reduces statistical power and confounds appropriate interpretation of these comparative analyses. For the same reason, the analysis of differences between Alumni cohorts is inconclusive. However, if these results are sustained with a larger population, this raises the prospect that alumni A1C outcomes deteriorate over time, after participants leave the YLT program. This raises questions about why and how this health measure might be eroded. In future analyses, as we gather more longitudinal data, we will have the opportunity to further interrogate persistence across time for discreet individuals.

Figure AA YLT Alumni A1C Results

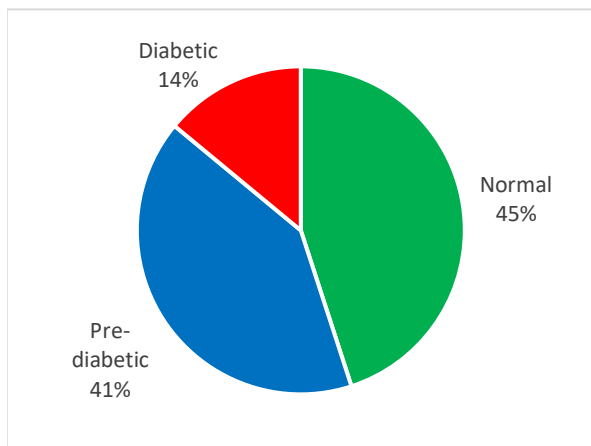
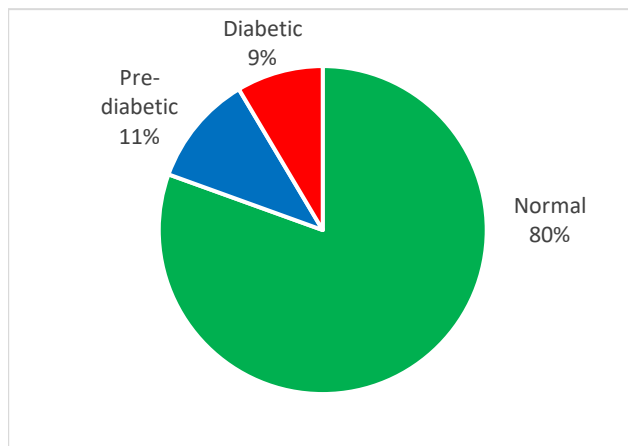


Figure Z Wai‘anae Peer A1C



### ‘Āina Connection & Food Sovereignty

Here we discuss ‘āina connection, food sovereignty, and food security as holistic health outcomes, though they also intersect directly with the prior section on socioeconomic outcomes. Food security, food sovereignty, and the underlying state of connection to ‘āina is of particular interest to us given the dismal state of food *insecurity* and related diseases and health disparities in Wai‘anae, and because of the great emphasis placed on food sovereignty in the YLT program.<sup>36</sup> The reciprocal relationship between youth and ‘āina, that which feeds, and the related concept and practice of food sovereignty,<sup>37</sup> have been foundation to the YLT experience since MA‘O’s

<sup>36</sup> Though food sovereignty and security are particularly salient to YLT on the MA‘O program track, it is also relevant to DMED participants who work at MA‘O during their ramp up program.

<sup>37</sup> While the concept of food sovereignty differs among cultures, in its simplest form it is the inherent right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agricultural systems. Food sovereignty aims to achieve long term food security, as well as community mobilization and maintenance of intergenerational cultural practices and foods. It rejects the globalized food system that prioritizes export-oriented

inception. As noted before, the program provides an environment where fresh produce is celebrated, prepared, and eaten together, and youth are encouraged to take home surplus produce for free, increasing their access to and the affordability of healthy food. YLT participants are supported through curriculum and mentorship to develop pilina with the ‘āina, and agency vis-a-vis their personal and family health. We therefore anticipated that alumni would report significant positive changes in their individual relationship to ‘āina and their commitment to the philosophy and practice of food sovereignty, as well as slightly more modest change in their families’ attitudes and behaviors. These hypotheses were clearly sustained by the questionnaire data and interviews and focus groups, as articulated below. Note the ‘ohana outcomes, which highlight the impact of the YLT experience on interns’ ohana, and indicate the power of YLT youth as agents of change among their families and social networks.

### Questionnaire Findings

As we expected, **the vast majority (89%) of respondents stated that their appreciation for ‘āina increased as a result of their participation in the YLT, with 70% reporting a significant increase.** (See Table 29.)

Table 29 Increased Appreciation for ‘Āina

Appreciation of ‘Āina	# YLT Alumni (n=62)	% of YLT Alumni
Increased significantly	40	70%
Increased somewhat	11	19%
None	4	7%
Decreased somewhat	1	2%
Decreased significantly	1	2%
Unknown	5	5

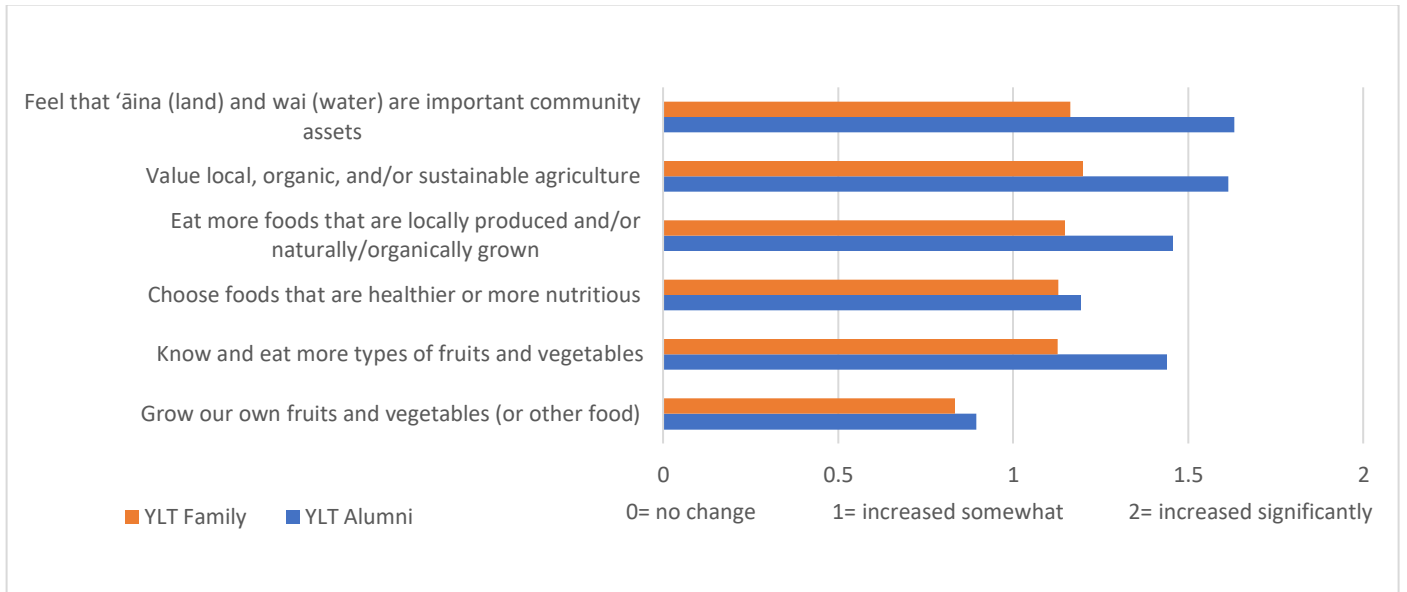
“ *the one phrase that we use is 'if you take good care of the ‘āina, the ‘āina will take good care of you.' So, I think that is one thing that I strongly believe in because if you do take even what you need [the ‘āina] will also help you because you are gonna take that thing that you need and consume it or use it. So, I think the relationship that I have with the āina is so different than before because I never thought of that.* (Interview Cohort 12+)

Alumni were also asked to describe how their connection and their ‘ohana’s connection to ‘āina and their attitudes and practices regarding food sovereignty changed during the YLT (see Figure BB). Respondents identified that the greatest change was in their attitude toward ‘āina and wai, and their valuing of local, organic and/or sustainable food. This strong attitudinal shift was also accompanied by self-reported behavioral changes, including eating more locally and/or organically produced food and more fruits and vegetables. Finally, alumni reported a slight increase in their own and their family’s growing of their own food. Responses did not differ significantly between MA’O and DMED participant, perhaps indicating that participation in Ramp Up programming at MA’O inculcated similar attitudes among participants in both tracks.

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*production over the health of the population and land. It lifts up issues of gender/violence against women, environmental sustainability, and indigenous rights with a central theme of anti-colonial struggles, even in post-colonial contexts.*  
<https://viacampesina.org/en/>

Figure BB Increased Alumni & 'Ohana Appreciation for 'Āina



Respondents also reported positive changes in their families on the same measures of 'āina connection and food sovereignty, though at lower rates than their personal attitudinal and behavioral changes (statistical significance noted in Table 30). This once again suggests that while they are in the YLT, youth exert an influence on their family members, thus extending an indirect impact of the program on participants' social networks.

Table 30 'Ohana 'Āina Outcomes

	YLT Alumni	Alumni Family	Significance
Feels that land and wai (water) are important community assets	1.63	1.16	***
Values local, organic, and/or sustainable agriculture	1.61	1.20	**
Eats more foods that are locally produced and/or naturally/organically grown	1.46	1.15	*
Knows and eats more types of fruits and vegetables	1.44	1.13	*
Chooses foods that are healthier or more nutritious	1.19	1.13	
Grows our own fruits and vegetables (or other food)	0.89	0.83	

### Food Security

Food security is of particular interest to us given the dismal state of food *insecurity* in Wai'anae, which is widely understood to be a 'food desert.'<sup>38</sup> For this analysis, food security was measured using an adapted questionnaire from the USDA Household Food Security survey.<sup>39</sup> We compared alumni responses to these standard questions against those of students at the University of Hawai'i Leeward Community College (n=187).<sup>40</sup> This is not a direct peer comparison, given that the LCC population are all current college students, while many alumni have

<sup>38</sup> Lee, Stephanie, Melissa Oshiro, Laura Hsu, Opal Vanessa Buchthal, and Tetine Sentell. "Public Health Hotline: Neighborhoods and Health in Hawai'i: Considering Food Accessibility and Affordability." *Hawaii Journal of Medicine and Public Health*. 2012 Aug; 71(8): 232-237. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3419825/>

<sup>39</sup> <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/survey-tools/#six>

<sup>40</sup> Recommendations to the Office of the President UH System Food Insecurity Committee, 2018

completed their education and are working full-time. However, it is a similar community by age and geography, and allows for a more direct comparison than any other data set available. Note that the LCC student population is a distinct group from the Wai‘anae peer group referenced elsewhere in this analysis (there is no food security data available for the latter).

### Questionnaire Findings

The results show that **the alumni reported a significantly higher level of food security than the LCC group**. We also observed that the degree of food security reported in the overall alumni group did not vary significantly amongst the cohorts, which suggests the potential persistence of food security over time among MA‘O interns. However, it is noteworthy that *a third of alumni still report low to very low food security*. These results appear to coincide with our finding that alumni usage of Supplemental Nutrition Assistance Program (SNAP) benefits (11%) is considerably lower than that of the general Wai‘anae population (34%) (see p. 48). However, we again note the difficulty of making this comparison due to confounding factors, as those still living with their families might be in households receiving SNAP benefits. Further analysis is necessary to draw any firm conclusions.

Table 31 YLT Alumni Food (In)Security

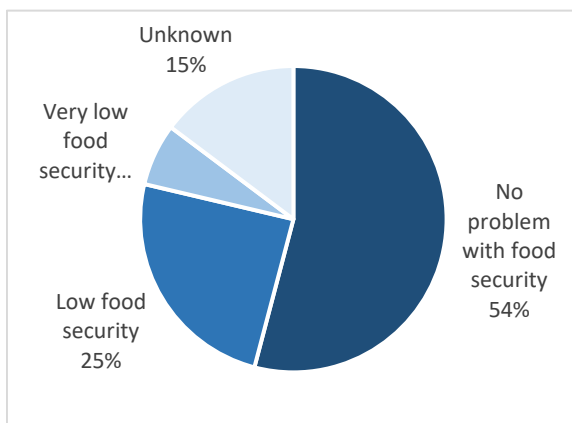
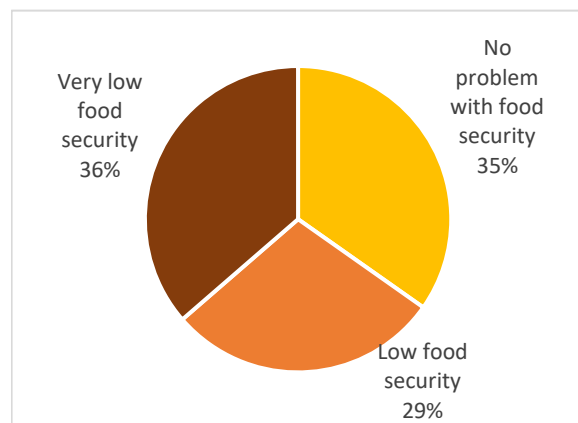


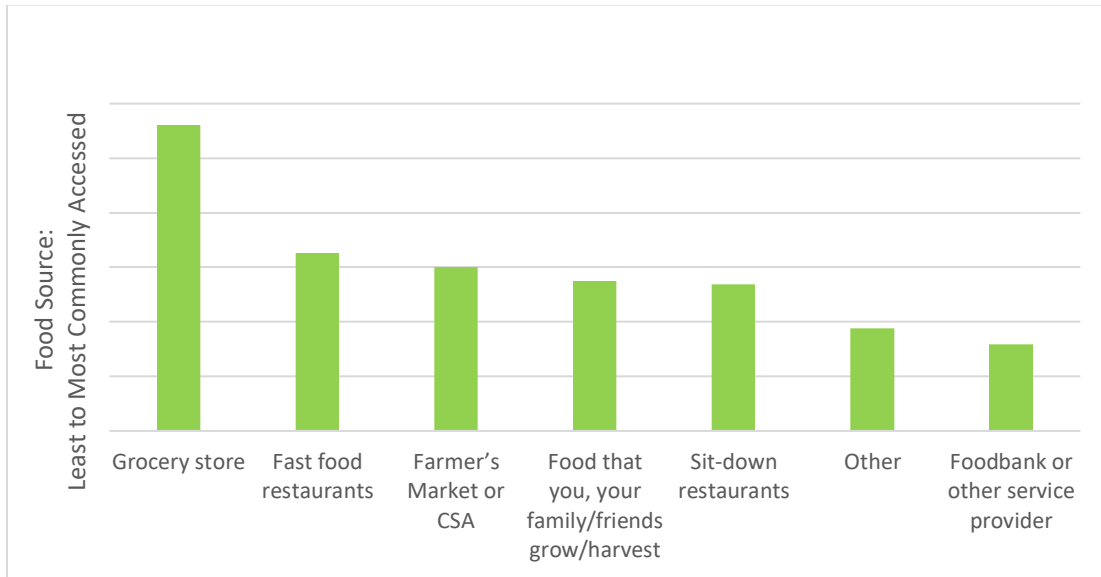
Table 32 LCC Student Population Food (In)Security



To explore our expectation that alumni would continue to exhibit a strong commitment to food sovereignty after their participation in the YLT, we asked alumni where they currently source their food. Figure CC ranks the aggregate alumni sources of food from most to least commonly accessed. Grocery stores were a strong favorite. This was followed by a tight cluster that included: fast food restaurants; farmer’s markets; food grown or harvested by alumni or their family or friends; and sit-down restaurants. This clustering is particularly interesting, as the categories represent such divergent food-related behaviors. Two final categories – other, and foodbanks or other service providers – lagged behind.

As we note in the discussion of career outcomes (pp. 41-45), these outcomes suggest a complex interplay between personal preferences, financial resources, and physical access determined by community. In particular we are left wondering about the impact of structural, environmental factors that impact the 63% of alumni who continue to live in Wai‘anae, where it is challenging to access healthy and fresh food and the majority of dining options are fast food chains. Future analyses should delve further into these questions around food access.

Figure CC YLT Alumni Food Sources



### Interview & Focus Group Findings

All 21 interviewees reported accessing local food, though they are also accessing non-local foods from places like Costco or the local grocer. While some interviewees described making more of an effort to eat local as much as possible, they were all mindful of where their food comes from (even those that eat local on a less frequent basis). Cross-referencing these responses with alumni's reports of positive changes in their 'āina connection and commitment to food sovereignty, we see that the YLT experience is driving a sustained commitment to active participation in the local food economy and community.

We anticipated that alumni who self-identified as buying local food or growing it for themselves would also describe having a strong connection to 'āina. This expectation was borne out in the interviews; as noted previously, all 21 interviewees reported a local food source and the vast majority (17) indicated a strong connection with 'āina. More specifically, of the nine people who grow their own food, everyone indicated currently having a strong relationship to 'āina: five identified having a strong daily life connection to 'āina and/or six of them reported a stronger connection because of YLT. Notably, when interviewees were asked about their current relationship to 'āina, they did not always discuss their current relationship. Rather, they described their current relationship in terms of how YLT changed it. Of the seven interviewees currently involved with MA'O in post-YLT roles, six of them report a strong daily connection to 'āina. The outlier who did not describe a strong connection to 'āina responded by describing how YLT impacted their growth of knowledge.

“*[I] look towards the future with hope that our 'āina is going to be used for what it is for. Growing food and nourishing the 'āina [...] and for that 'āina to share us back with food and all of that.*” (Interview Cohort 12+)

In the 'ohana dialogue focus groups several alumni clearly articulated how their YLT experience influences their current practice of growing their own food and eating healthy. This also demonstrates their application of farming skills learned in the program.

“ *this year, we actually started gardening, and I am actually putting everything that I learned through MA'O into action now, after what, eight years since I've left MA'O, and it's still with me. (...) And I've introduced a lot of veggies to my husband because he's like, "Oh, I don't really eat healthy foods." His diet was pizzas and instant meals, until I met him and told him, "No, you're going to start eating healthier. (Focus Group)*

“ *when my other half and I first bought our house in October of last year, one of the first things I did was I had him build me some garden beds in the back of our house so that I could start planting our own vegetables because my boyfriend is real big on eating healthy. And he often does like vegan meals, rather than having meat and junk food and stuff. Like he really enjoys healthy food. And I enjoy implementing the knowledge I learned from MA'O into my own yard. And it feels great when you know where your food is coming from. And that's what MA'O taught me, the importance of farm to table, and knowing where your food is coming from and what is on your produce. I also feel like MA'O kind of has its own culture. Like the people, the environment, just, you feel a big sense of family. You have a work family, you have a school family. So you have that support in both aspects of life when you're at MA'O. And I think that's why we tend to fall off of that Ohana path because we go our own ways and we're not always together. (Focus Group)*

## **Community Connectedness**

The YLT program is designed to help youth connect with their culture and history, and develop pilina and engagement with their community. In this way we seek to empower youth to develop a culturally-rooted and communally-oriented worldview. Given this programmatic emphasis, we expected that YLT alumni would express an abiding connection to community, and in particular to Wai'anae, regardless of their current community of residence. We anticipated that this commitment would be expressed through a high degree of community service, volunteerism, community organizing and advocacy, and civic engagement. We also anticipated that alumni would appreciate and engage in cultural practices, whether Hawaiian or otherwise. Finally, we expected that alumni would pursue communally enriching careers, as described above in the section on career outcomes (see pp. 41-45). We explored these “community connectedness” outcomes in several sections of the questionnaire, including a series of open-ended questions, as well as in the interviews and focus groups.

In summary we found that **alumni declare a strong connection with Wai'anae moku, regardless of where they live currently. Many alumni also feel connected to MA'O as a source of community.** Future inquiries should dive deeper into how alumni feel and express agency within their communities.

## **Mo'olelo – Social & Cultural Narratives**

As noted above, the YLT is grounded in a culturally-rooted approach to youth empowerment and mentorship. Program curriculum is designed to empower youth to connect with their culture and history, and particularly with the native Hawaiian culture and history in Wai'anae moku. For this reason, we anticipated that alumni would report having developed a greater appreciation for mo'olelo, and social and cultural narratives through the YLT. We understand social and cultural narratives to encompass the stories that a community uses to structure and give meaning to its shared history and contemporary experience, along with shared origin and creation stories, myths, and fables that together weave a communal values framework.

## Questionnaire Findings

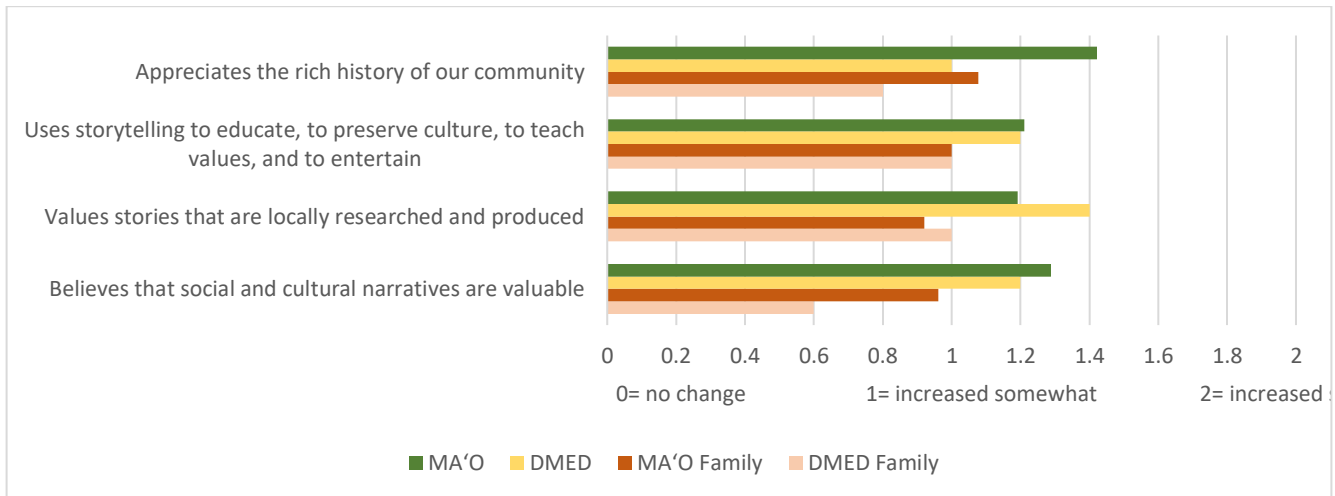
The questionnaire responses affirmed this hypothesis: **86% of alumni indicated an increase in their appreciation for cultural narratives.**<sup>41</sup> (See Table 33.) We note that the 46% who reported a *significant* increase in their appreciation is a less robust outcome than the 70% of alumni who reported a *significant* increase in their appreciation for ‘āina (see p. 59). Given the wording of our questions, it is not possible to determine whether this was driven by participants already having a higher appreciation for cultural narratives than for ‘āina prior to joining the program, or if the program is more impactful in driving appreciation for ‘āina than cultural narratives.

Table 33 Increased Appreciation for Cultural Narratives

Appreciation of Cultural Narratives	# YLT Alumni (n=62)	% of YLT Alumni
Increased significantly	26	46%
Increased somewhat	23	40%
None	6	11%
Decreased somewhat	1	2%
Decreased significantly	1	1%
Unknown	5	5%

It is notable that MA’O and DMED participants reported a similar increase in their appreciation for cultural narratives (see Figure DD). This suggests that the value of cultural narratives, and particularly an appreciation for the community’s history, is clearly imparted through MA’O programming, even though the work content is not as explicitly geared toward developing storytelling skills as in the DMED track. Alumni also reported that their families’ appreciation for cultural narratives increased due to their participation in the YLT, though again at lower rates than the interns’ own attitudinal changes. As noted earlier in this analysis, this indicates a broader, second tier impact of the YLT on youths’ ‘ohana.

Figure DD Increased Connection to Cultural Narratives Due to the YLT - MA’O & DMED Tracks



<sup>41</sup> These percentages were arrived at by taking an average of the alumni responses to the eight items related to social and cultural narratives.



## Focus Group Findings

Notably, several participants in the ‘ohana dialogue focus groups discussed developing their storytelling skill while in the YLT, a skill that has empowered them to share their experiences with others.

“ I believe strongly **what this program has done for me is building my morale and my storytelling** because by just doing that, it has inspired so much more people. Just coming in as an 18 year old **speaking in front of audience of hundreds of people, just by sharing that, you see how much people you can influence just a small local boy from, from beautiful Waianae.** (Focus Group)

“ I think for me the storytelling wasn't so much like cultural storytelling or historic storytelling, was just our own personal MA'O level. (...) Just finding what our story was and telling that, and I believe that's what we're here doing today. And that's the thing that I think was instilled in me with the idea of storytelling. But yeah. **So when I think of storytelling I think of more personal storytelling, sharing of my relationship and my experience, rather than historical or Hawaiian storytelling.** (Focus Group)

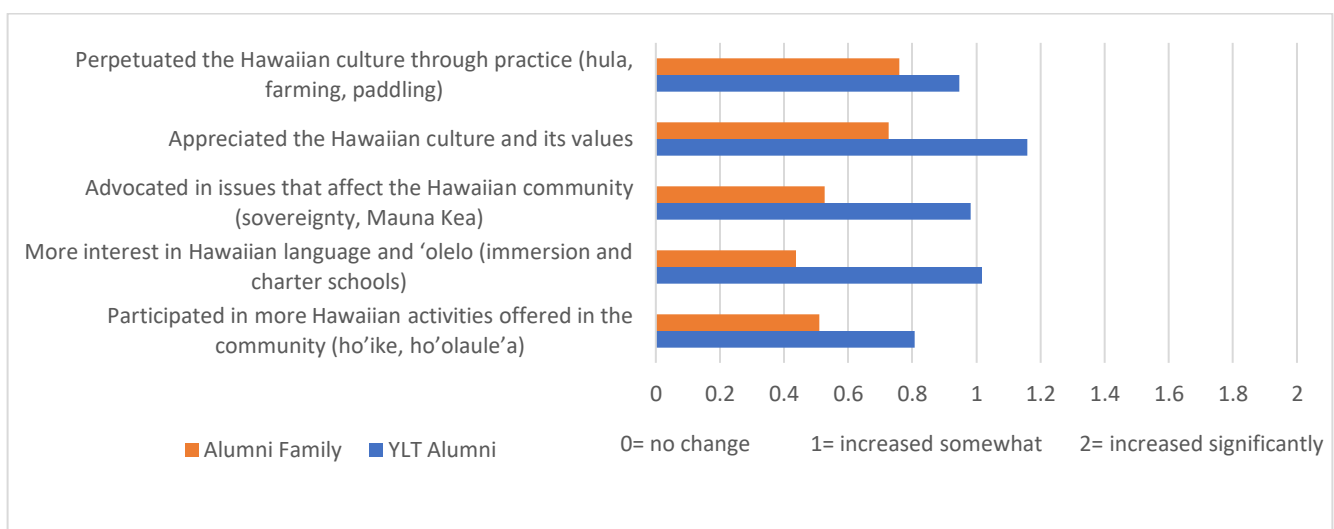
## Cultural Connection

Related to the social and cultural narrative outcomes explored above, we anticipated that YLT alumni would report increased knowledge and appreciation for Hawaiian culture due to their participation in the YLT.

## Questionnaire Findings

**The alumni did report positive changes in their knowledge and appreciation for Hawaiian culture, however the increase on these measures was relatively modest compared to the other areas of YLT-driven change** (i.e. personal capacity and agency, well-being, skills acquisition, appreciation and practice of food sovereignty, etc.). Similarly, participants reported that the YLT experience exerted a mild positive influence on their families’ appreciation for Hawaiian culture. (See Figure EE.) It is not clear whether this is because interns and their families already had a high degree of appreciation for Hawaiian culture before the program, or if the program’s impact has been less significant in this area. Future inquiries are required to develop a more nuanced understanding of these outcomes.

Figure EE Increased Knowledge & Appreciation for Hawaiian Culture Attributed to the YLT



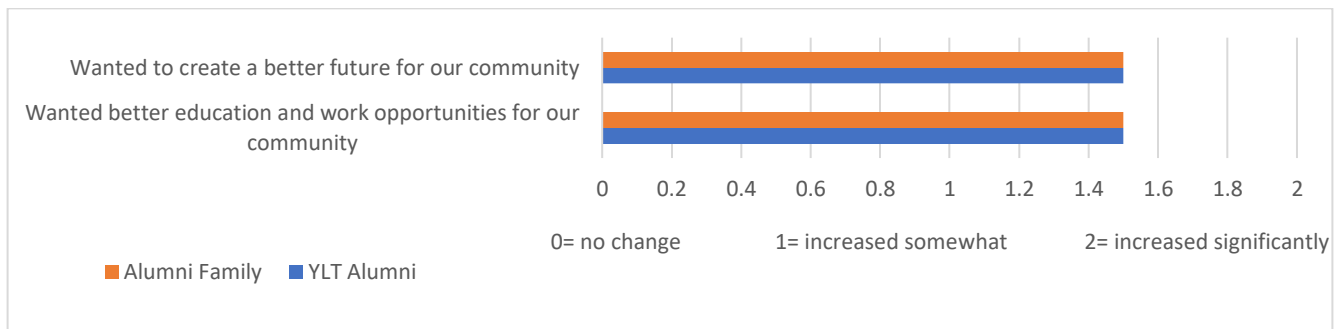
## Community Aspirations

Finally, given the YLT’s emphasis on kuleana to communal outcomes, and the program’s emphasis on mentoring youth to become community leaders, we anticipated that alumni would report that their aspirations for the community had grown due to their participation in the YLT. To assess for this, we asked alumni how their hopes and their families’ hopes for the community changed as a result of their time in the YLT.

### Questionnaire Findings

**The alumni attributed a substantial deepening of their and their families’ interest in community change due to their participation in the YLT** (see Figure FF). It is notable that the alumni reported the same degree of change for themselves and their families. The YLT’s impact on their ‘ohana attitudes and aspirations for community was strongest example of the YLT program’s influence on participants’ social networks (seen also in the areas of appreciation for ‘āina, practice of food sovereignty, etc.). Many interviewees articulated this aspiration as an intergenerational hope for their ‘ohana present and future (see pp. 49-50).

Figure FF Increasing Community Aspirations Through the YLT



## Connection to Community

Our first question in this area was to determine whether alumni feel connected to community – which could be defined either as their current community of residence or a community other than where they live (could be another place, or a non-place-based community).

### Questionnaire Findings

**72% of alumni reported a current community connection. Of the 45 respondents who reported a current community connection, 93% report that connection to be to Wai‘anae**, with the remaining 7% identifying with another community (whether place based or not). (See Figure GG.) Notably, only four respondents living outside of Wai‘anae responded to this question, 50% of whom reported still feeling connected to Wai‘anae. (See Table 34.) However, the non-Wai‘anae population is too small to enable meaningful inquiry into differentiation of community connectedness outcomes between Wai‘anae and non Wai‘anae residents.

Figure GG Alumni Community Connectedness

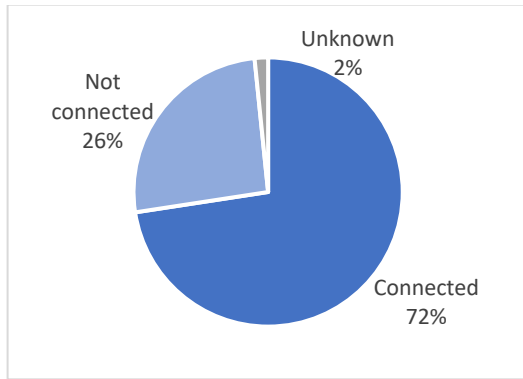


Table 34 Community of Connection & Community of Residence

Community of Connection	Current Residence		Total
	Elsewhere	Wai‘anae	
Other	2 (50%)	1 (2.4%)	3 (6.7%)
Wai‘anae	2 (50%)	40 (98%)	42 (93%)
<b>Total</b>	<b>4 (100%)</b>	<b>41 (100%)</b>	<b>45 (100%)</b>

We explored the depth and nature of the alumni’s community connection using the Sense of Community Index (SCI-2), which is a well accepted quantitative measure of community connectedness.<sup>42</sup> Although prior studies have demonstrated that the SCI is a valid measurement instrument and a strong predictor of behaviors, including participation in communal activities, it should be used with caution, as every community is different and comparisons across communities should be avoided due to the heterogeneity of individuals and communities. The index is composed of a Likert scale for 24 key attributes, which provide an aggregate sense of community that can be broken down into four critical attributes: membership, influence, meeting needs, and a shared emotional connection. In other studies, communities such as schools and cities have scored an average SCI-2 between 24 and 61.<sup>43</sup>

In this analysis the alumni had an aggregate score of 37 on the index, which is in the range with other communities’ averages. The older cohorts exhibited a stronger sense of community, with cohorts 1-5 scoring 39.17, cohorts 6-11.5 at 36.64, and cohorts 12+ at 35.69. (See Table 35.) However, we note that the differences between cohorts are not statistically significant, perhaps due to the small sample size. When we looked at the four key attributes of the index, we found that older alumni had scored higher for the ‘meeting needs’ attribute - e.g., their needs are met by the community, and people in the community share similar needs, priorities and goals – relative to younger cohorts 12+. Cohort 1-5 also have a stronger sense of membership (e.g., belonging in their community) and influence (e.g., ability to change things) relative to younger cohorts. Notably, no differences across cohorts were observed for the alumni’s shared emotional connection to the community.

Table 35 YLT Alumni Community Connectedness on the SCI-2 Index

Cohort	Overall	Reinforcement of Needs	Membership	Influence	Shared Emotional Connection
1-5	39.18	9.12	9.82	9.18	11.06
6-11.5	36.65	9.24	8.18	8.35	10.88
>12	35.69	8.85	8.46	7.69	10.69

<sup>42</sup> “The Sense of Community Index (SCI) is one of the most frequently used quantitative measure of sense of community in the social sciences. It has been used in numerous studies covering different cultures in North and South America, Asia, Middle East, as well as many contexts (e.g. urban, suburban, rural, tribal, workplaces, schools, universities, recreational clubs, internet communities, etc.). The SCI is based on a theory of sense of community presented by McMillan and Chavis (1986). <http://dl.icdst.org/pdfs/files/f458f0f15016819295377e5a979b1893.pdf>

<sup>43</sup> Chavis, D.M., Lee, K.S., & Acosta J.D. The Sense of Community (SCI) Revised: The Reliability and Validity of the SCI-2. Paper presented at the 2nd International Community Psychology Conference, Lisboa, Portugal (2018)

We also invited alumni to further explain their current or desired community connection via open-ended responses in the questionnaire, and in the one-on-one interviews. The picture that emerges from these articulations of community resoundingly affirms that **the majority of alumni feel a deep and abiding sense of connection to the community of Wai‘anae, regardless of where they live currently.**

Of the 34 alumni who provided open-ended responses on the questionnaire, the majority described feeling connected currently and/or desiring a deeper connection. Those who felt connected described this connection as time spent giving back to the community and to specific organizations, as well as a feeling of knowing and being known by others in the community. The alumni also articulated their connectedness as a sense of pilina with each other and pilina to the ‘āina. Several of those who do not currently feel connected recollected prior feelings of connection, for example, *“Right now I am outside of my home connection of Waianae but I hope to build it stronger as each time I come back I cry and feel for my home.”* (Cohort 6-11.5)

We also asked those who felt connected to the community where they lived to indicate their community of residence. Of the 29 alumni who responded to this question, over two-thirds feel connected with a community in Wai‘anae moku (see Table 38). The other participants responded that they felt connected to the communities where they reside. Of the eight respondents who identified that they felt connected to a community other than where they live, 76% still feel connected with Wai‘anae or MA‘O (see Table 37).

Table 38 Community of Connection & Residence

Community	# of respondents	% of Respondents
Wai‘anae	14	48%
Nānākuli	3	10%
West Side of O‘ahu	2	7%
Outside of Hawai‘i/Not specific	6	21%
Other Hawai‘i	4	14%

Ten alumni reported that they do not currently feel connected to community. Seven of these individuals reported that they had previously felt connected to community, but had lost this connection due to moving out of Wai‘anae and/or leaving MA‘O (see Table 36). Notably, none of the alumni who reported missing a connection were from cohorts 12+.

Table 37 Community of Connection for Non Wai‘anae Residents

Community	# of respondents	% of respondents
Wai‘anae	5	63%
MA‘O	1	13%
Hilo	1	13%
Hawaiian Air	1	13%

*Over 100% due to rounding*

Table 36 Reasons for Loss of Connection

Theme	# of respondents	% of respondents
Moved out of Wai‘anae	4	57%
No Longer at MA‘O	1	14%
Other	2	29%

## Interview Findings

The themes that emerged from the questionnaire open-ended responses were echoed in the interviews, with the majority of interviewees confirming that they identify with their community of residence and/or Wai‘anae (including those who have left Wai‘anae). More than half of the interviewees also identified an organization as a source of community, including the seven individuals still affiliated with MA‘O in post-YLT roles, all of whom identified MA‘O as one of their communities. Other, non-MA‘O, responses included a child’s school, a church group, a city council, and a job at a food co-op. Five of the interviewees said that their connections to community are grounded in the relationships they have with others and the ‘āina; these five individuals are all still at MA‘O in post-YLT roles. **Notably, all 14 interviewees who identified having meaningful work explained that the sense of community they derived at work contributed to why their work is meaningful.**

“ *building the relationships with customers at the farmers' market, but also the co-producers, to the restaurant workers, and the grocery store clerks and stuff like that. It's a different kind of experience from being friends with your coworkers and stuff like that. I think that really, **having those interactions regularly really made me feel like I was a part of the community.*** Interview Cohort 6-11.5)

“ *The land is important. It's a huge part of me. Honestly, if I couldn't live on this side anymore, if I had to leave, if something happened to our side of the island or the land, I'd probably cry. I'm very, very solid with my part of the island. Even when I go out, if I travel, I could never stay away for a long period of time. I could never live somewhere else. There's an ache, yeah? An ache that I want to come home, I want to be here. I want to be on my island, on my side, in my community. I like to see my mountain range shaped like that. Other places that I've stayed, it's not the same.”* (Interview Cohort 1-5)

“ *Okay. I guess, so what's coming to mind right now, specifically for my work in the farm, I think, definitely, being connected to nature, whether that's through farming or hiking and stuff like that. Just being in touch with nature is really important to me, and then also I guess relationships. That could be family relationships, but also through the farm, relationships with (...) the people I work with, for sure, because we see each other regularly, so those relationships are pretty firm, but I think also **the opportunities that I've gotten to kind of become a part of the community (...) when we sell produce to co-producers.*** (Interview Cohort 6-11.5)

Interviewees also expressed having developed a strong sense of community while in the YLT, a community that encompassed their fellow interns, MA‘O and the broader Wai‘anae community:

“ *this isn't about just growing food either. Right? **It's about creating this community of people where you feel welcomed and loved and safe, and that you're working together for this greater thing.** This thing that's bigger than yourself.* (Interview Cohort 6-11.5)

Six (29%) interviewees explained that they no longer live where they identify their community, which for all of them was MA'O and/or the wider Wai'anae moku. There was an exception, with one person who has left Wai'anae finding community where she now lives. **This reiterates the closeness that YLT participants feel with Wai'anae, regardless of their current community of residency.**

“ *I live in the city now and not a lot of community stuff happens where i am due to covid. I did feel connected in Hawaii but here in New York it is different.* (Open-ended response Cohort 6-11.5)

“ *When I lived in Wai'anae it was easy to feel connected because I was near family in a familiar place. Living in Waipahu I don't have family or friends near so I don't socialize.* (Open-ended response Cohort 1-5)

“ *I felt the most connected when I was a part of MA'O. Being able to work farmers markets, knowing that I'm a part of a community that's giving back to my own community. However, I don't feel like I'm giving back to my community at all. There are volunteer opportunities that my current job offers now but with the pandemic, it's hard to contribute to anything.”* (Open-ended response Cohort 6-11.5)

“ *Once upon a time, yes [I did feel connected to community]. Unfortunately, I became disconnected after experiencing the cruel disposition of neighbors and immediate misjudgments/biased classification of worth they made of me simply because I was houseless.* (Open-ended response Cohort 1-5)

### **Community Service & Engagement**

Given the YLT emphasis on developing a communally-oriented worldview, we anticipated that a majority of YLT participants would report participating in community service and other forms of community engagement.

#### **Questionnaire Findings**

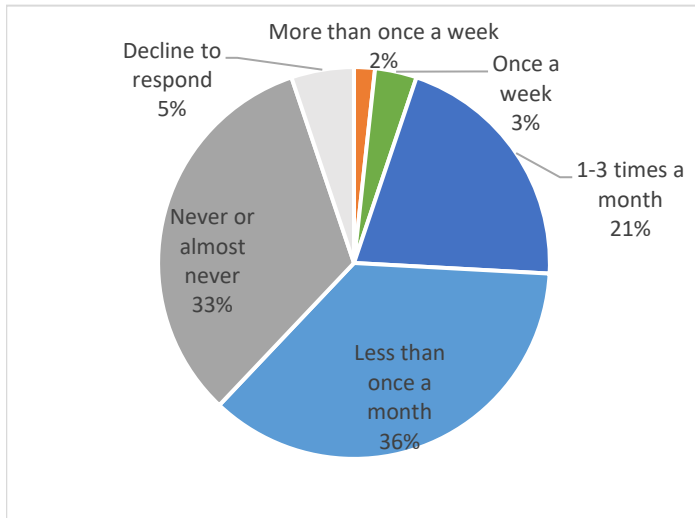
In fact, **a quarter of alumni reported that they volunteer at least one to three times a month**, while a third reported that they volunteer less than once per month. (See Figure HH.) This latter category could include some who volunteer several times a year; this option should be more clearly articulated in future analyses. We also asked alumni which types of communally-oriented activities they engage in; Table 39. identifies the percent of respondents who pursue each type of activity at least once per month. **Of particular note: 49% of respondents state that they engage in aloha 'āina / malama 'āina activities, and 39% participate in cultural and/or traditional practices at least once per month.**

Table 39 YLT Alumni Current Community Engagement

Characteristic	N = 49
Family events e.g., prepare meals together)	84%
Work in your community	67%
Aloha ‘āina/malama ‘āina	49%
Learn your culture and/or traditional practices	39%
Learn your language	29%
Volunteer/Kōkua	27%
Community events and/or organizing such as beach cleaning or food drive)	24%
Religious meetings or services	24%
Make financial or in kind donations to political, cultural or social causes	14%
Community groups	10%
Self-help groups	8.%
Provide written or in person testimony to elected officials neighborhood board, legislature, etc.)	8%
Participate in sign waving or marches for political, cultural or social causes	6%

Threshold = once a month or higher

Figure HH YLT Alumni Volunteerism



When asked to provide open-ended responses regarding spaces outside of work where they found purpose, 57% of respondents identified community engagement as an important source of meaning in their lives. This was consistent across the cohorts. Types of engagement identified included volunteering, cultural activities, and school and church activities.

“ I participate once a month with the food bank of Hawaii to pass out food during their food drive within my community. Covid-19 has impacted many and I am fortunate to still be employed and make ends meet at this time. Others in my community are hurting. The food drive means that they are being provided for in some capacity. (Cohort 1-5)

“ I used to be a youth leader for my church for many years and now that I'm married I am currently reaching out to young adults and families in our community. (Cohort 1-5)

For those who responded that they do not have spaces outside of work where they find meaning, most attributed this to being too busy working or attending school. One such respondent who is in a post-YLT role at MA'O said that this meaning is found in the mālama 'āina work at MA'O:

“ No, my life is immersed in the farm and all the work it entails. Although the farm is the single space representing where I find purpose, in this single space my purpose is divided into multiple spaces. I find purpose in our Malama Aina work, the mentorship of interns, feeding our families/community/island. (Cohort 1-5)

## Interview & Focus Group Findings

As noted above in the section on meaningful work (pp. 41-44), several interviewees and ‘ohana dialogue focus group participants reported that they find meaning in volunteer work and community service, rather than in the workplace. One focus group participant directly linked their volunteer efforts to their time at MA’O:

“*So the job that I have, I wouldn't say that it's meaningful, but **the work that I do outside of my actual job I consider to be meaningful work. You know, volunteering with my community.** There's a program where we feed anyone who just needs food. It's like you buy or share for 20 bucks and they get a hundred to \$150 worth of food, and that's once a month. And then, just volunteering wherever I can. **That, to me, is meaningful even though it's not a job title. And a lot of the volunteer work I've learned from working with MA'O. So I still feel like, I'm still doing meaningful work, even if I'm not being paid for it, which, to me, is a bigger... I guess, bigger impact on community around me.*** (Focus Group)

“*I feel as if a part of who I am today, is in part because of the lessons/teachings/connections I've had within my community. Because of **this I feel it is my kuleana to give back to this community in the same way its given to me.*** (Open-ended response Cohort 1-5)

### Civic Engagement

Historically, the community of Wai‘anae moku, comprising State House Districts 43 and 44,<sup>44</sup> has had some of the lowest voter turnout rates in the state. This was again the case in the general election of 2020, which drove the highest statewide turnout since 1998.<sup>45</sup> Statewide, 69.6% of registered voters voted, compared to 55% in District 44 and 58% in District 43 – the worst and third lowest turnouts of any districts in the state, respectively.<sup>46</sup>

Given the YLT’s emphasis on community engagement and practicing personal agency to contribute to communal outcomes, we anticipated that YLT alumni would vote in higher numbers than their peers.

### Questionnaire Findings

To examine this hypothesis, we asked alumni how likely they were to vote in the (then upcoming) November 2020 election (the survey was deployed in October 2020). In December 2020 we then compared the percentage of alumni who said that they were “certain to vote” or “most likely to vote” against the actual turnout in Wai‘anae moku and statewide in the November 2020 election. We found that 63% of alumni planned to vote, which is indeed higher than the turnout of registered voters in Wai‘anae moku (55% and 58% in the two districts), though this is still a slightly lower rate than the statewide population (70%). (See Table 40.) Meanwhile, 18% of alumni said they would not or probably would not vote, and 12% did not reply.

Table 40 YLT Alumni Voting Rates, Compared to State & District

	YLT Alumni	State of Hawai‘i	Wai‘anae District 44	Wai‘anae District 43
<b>Voters</b>	63%	70%	55%	58%

*YLT alumni: those certain or most likely to vote;*

*State and District data is actual turnout of registered voters*

<sup>44</sup> District 43 includes Ewa Villages, Kalaeloa, Honokai Hale, Nanakai Gardens, Ko Olina, Kahe Point, Nānākuli, Lualualei, and parts of Mā‘ili. District 44 includes Mākua, Mākaha, Wai‘anae, and parts of Mā‘ili.

<sup>45</sup> <https://www.hawaiinewsnow.com/2020/11/04/hawaii-general-election-voter-turnout-was-best-its-been-since/>

<sup>46</sup> <https://histategis.maps.arcgis.com/apps/MapSeries/index.html?appid=8d2be18a163f4e5b88acb176d6bb9407>



## Cultural Rootedness

As noted previously, the YLT experience is culturally-rooted and includes the celebration of cultural practices such as oli (chants) and mo'olelo (stories and histories). We expected that this would lead to youth's ongoing interest in and practice of culturally-oriented activities (native Hawaiian and/or other cultures), even after the program's conclusion. Examples of such practices include 'olelo Hawai'i and other ancestral languages, hula and other forms of dance, cultural activities, and interest in genealogy and history. To learn about this, we asked alumni about their individual and family *current* engagement in cultural activities.

### Questionnaire Findings

**The alumni responses affirm that the majority of all alumni continue to engage in Hawaiian and/or other cultural practices and activities in the present.** (See Figures II and JJ.) The greatest number of participants (20-60%, depending on the activity) reported participating in culturally rooted activities and practices along with their families. A substantial subset (15-40%) indicated that they pursue these activities as a personal, not family practice. A minority (5-15%) reported that they do not participate in these activities, but that their families do so.

Figure II YLT Alumni Participation in Hawaiian Cultural Practices

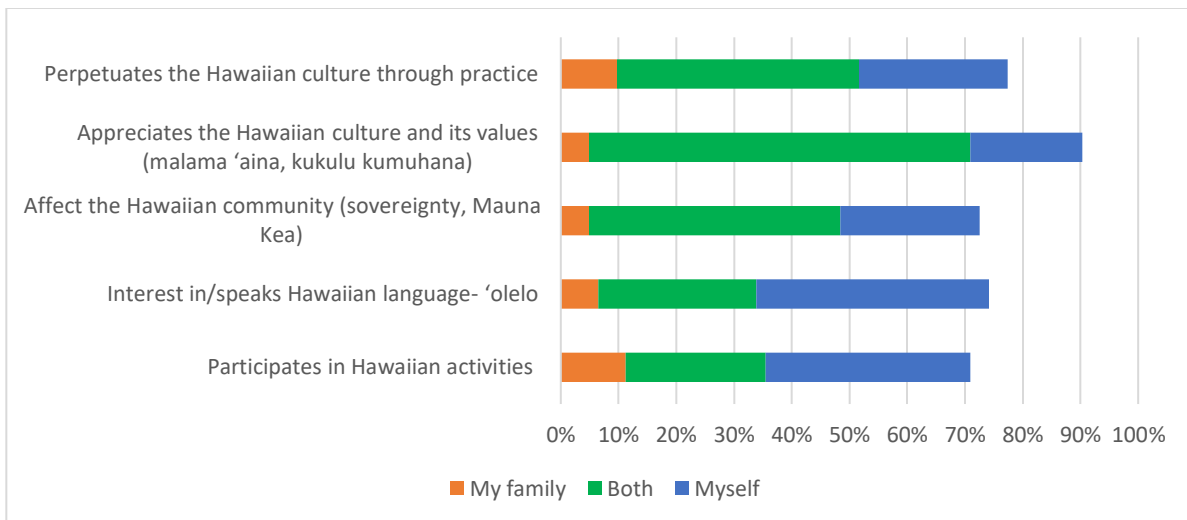
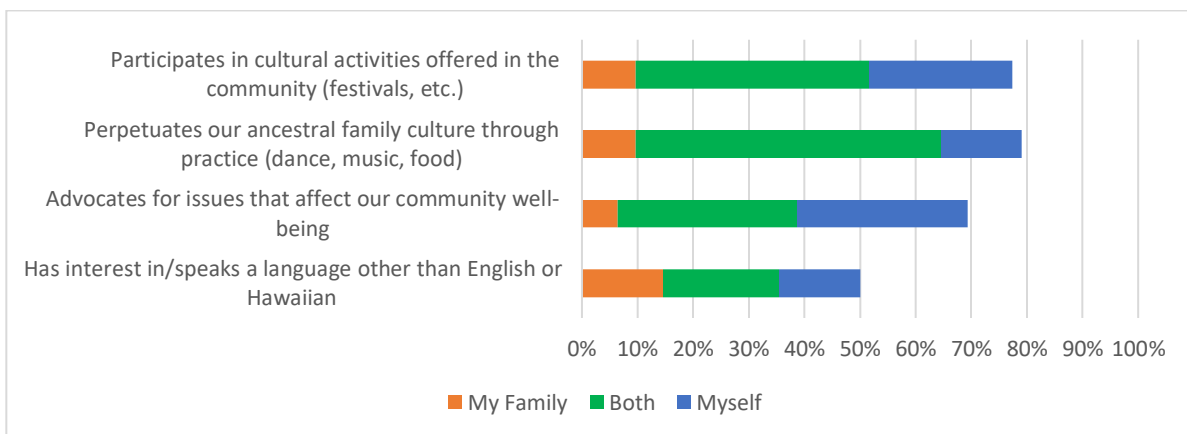


Figure JJ YLT Alumni Participation in (non Hawaiian) Cultural Practices



## Interview Findings

Interviewees referenced appreciation for and engagement with culture throughout their discussions, often in relation to the practice of growing food for community (see p. 69). Here we highlight two examples of interviewees who described deepening their cultural identity and rootedness through the YLT, and for whom this is vital to their role as current and future parents.

“ (...) *finding our identity as a Hawaiian and being in MA'O, it was more of the bringing it out and seeing how, knowing who I am as a Hawaiian and connecting to the land while working there. It gave me more of a sense of who I was as a Hawaiian person. And I noticed I became more of like... I wouldn't say activist. I'm not one of those go out and stuff, but just to teach my kids or prior to having my son, teaching my nieces and nephews and my younger siblings about the importance of knowing who we are and being one with the land, and how that, it does play into our Hawaiian culture was being connected to the land. Not just saying we're connected, but like actually hands in dirt and feet in mud kind of action.* (Interview Cohort 1-5)

“ *So we had the work ethics, health and fitness. Oh, culturally, that was another big one. I always was connected with my culture, but not as much as I was until MA'O, probably because maybe I was younger or something. I don't know. Maybe that's why I never really paid attention to it. But when I got into MA'O and I started being around it more often started hearing it every day. Learning new things, being exposed to all of that stuff or actually going hand in hand with the cultural stuffs too. Not hand-in-hand, hands on. Then that helped me connect more. And that definitely impacted my life because I see things differently now. I see more to the world. I'm not just tunnel visioned with everything. And so that definitely impacted me that way, and it impacted me on how I want to raise my future kids, my family.* (Interview Cohort 12+)

## ATTRITION & RECOMMENDATIONS

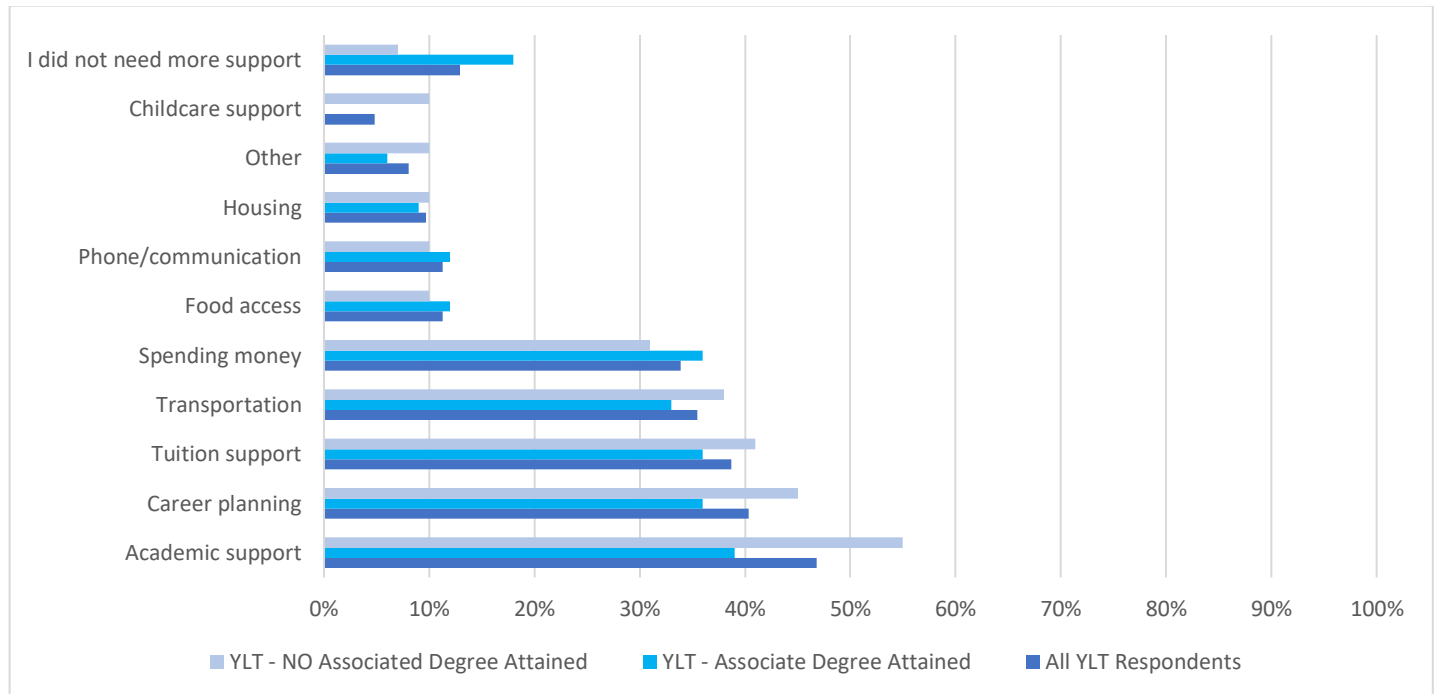
### Support & Attrition

As described earlier, of all 315 YLT participants in cohorts 1-12.5, 40% remained in the program for four or more semesters, while 31% stayed for 2-3 semesters, and 29% persisted for 0-1 semesters. This correlates with the 41% graduation rate for YLT participants – meaning that 59% of YLT participants who are eligible to have graduated have not (yet) achieved an associate degree.<sup>47</sup> To ascertain what pressures may have contributed to YLT attrition and failure to graduate, we asked alumni which types of support (if any) they needed more of while in the program. We also invited survey participants to share their recommendations for the ongoing refinement of the YLT program.

### Questionnaire Findings

**The respondents' greatest demand was for more academic support; this was particularly the case for those who did not attain their associate degree. More than a third of respondents also identified needing more support in the areas of career planning, tuition, transportation, and spending money.** Around 10% reported needing support for basic needs, including food access, housing, and communication technology. A small number of alumni noted that they needed childcare support, though it is notable that all (3) of those who identified this need did not attain their associate degree. This corresponds with our experience that it is difficult for participants (age 17-24 while in the YLT) who have their own children and struggle with insufficient childcare to persist in the program and graduate with their degree. About one fifth of YLT respondents who did achieve their associate degree said that they did not need additional support of any kind. (See Figure KK.)

Figure KK Areas In Which YLT Needed More Support



<sup>47</sup> Though the 40% graduation rate and 40% 4+ semester duration align precisely, these two groups vary somewhat. There are some individuals who remain in the program for fewer than 4 semesters, but who achieve their degree. This happens in a variety of ways; for example a student may transfer out of LCC and into UH Mānoa, leaving MA'O but continuing their studies, or a student may leave MA'O and continue their studies independently. Conversely, there are also YLT participants who persist for 4+ semesters at MA'O, but fall just short of attaining their associate degree.

## Interview & Focus Group Findings

To learn more about the challenges and pressures that can prevent YLT participants from persisting in the program and attaining their degree, we asked the five interviewees who left the YLT early about their reasons for doing so (including the three interviewees mentioned above who noted needing more childcare support).<sup>48</sup> We expected that they would mention personal and/or family health, financial pressures, academic challenges, and pressure to care for family members as sources of pressure. On a more positive note, we anticipated that some alumni would have left the program to pursue new opportunities.

The interviewees identified obstacles to finishing college, including: a lack of family support, immaturity, debt, and getting bored easily. However, four of the five stated that they still view a college education positively, and that their view was influenced by the YLT. One interviewee has since continued her studies and is now enrolled in a graduate school, which she attributes to having a supportive spouse.

Given that three of the interviewees who left the YLT early were from Cohort 1-5 and two from Cohort 6-11.5, they have had years to reflect since participating in the program. Notably, they all regret having left MA'Ō early, and shared their personal growth and insights about why they had to leave and what different choices they could have made. Four alumni reported a single direct reason for leaving the YLT: medical reasons; suspended from the program and had transportation issues; suspended due to academic performance; and a shoulder injury from a car accident. One interviewee gave three reasons: they had a full-time job, were paying out of state tuition (which would not have been fully covered through the YLT), and had personal life stress. Three interviewees stated that they needed more family support, one of whom said her dad discouraged her from attending college and wanted her to be a server at Hooters to make money. Three individuals also said that their families do not value education. The theme that emerged from these conversations was that **most interns who left the program early did so due to a lack of family support.**

“  
*I didn't [complete an AA]. (...) I totally regret that. (...) the program offers a lot of help and support (...) there's no excuse to fail because there's other people in your class that you can sit down with and do work together. I think my whole thing was more on the home support. That, I think is very important, especially for kids who are first generation college students, or just first year, just your freshman year in general. I think family support is a big thing, or at least having some kind of support at home. Even if it's not your family, just having some kind of support outside of the program and outside of, education-wise, plays a big role. (...) if you don't have a support, a strong support system at home, it does tend to fall into your school. (Interview Cohort 1-5)*

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<sup>48</sup> Four of the five interviewees who left early have not attained an associate degree; one returned to school after the program and is currently enrolled in an MA program. One additional interviewee finished the program but did not get a degree. This analysis on attrition focuses on those who left the program early. In retrospect we should have asked separate questions in the interview about why alumni left the YLT early, whether they finished their college degree, and what further education that have pursued.

All five individuals also shared that they valued the program and its positive impacts, regardless of their completion or degree attainment status. These sentiments were also shared by a focus group participant who has not attained a degree:

**“** *I didn't actually get my degree as I left a little bit earlier. But even then what MAO has taught me, like work ethic wise, I feel it's helped me with any job that I've been in. And it's helped me to go into more leadership roles in all the other jobs that I've had. So even though without the degree, yeah, it would have been nice if I had stuck it out. But things happen in everyone's lives. And we can still take what we learned from MAO and use it anywhere really. And apply it to not just work, but life in general. I love loving everyone, loving everyone at work, yourself, respecting others. Of course, willingness to work because (...) you can't really get anywhere if you're going to be lazy and not want to work, and work for what you have. (Focus Group)*

We acknowledge that a sample group of five interviewees is not sufficient to draw generalized conclusions for the ~60% of interns who have left the program early. We note again that it was more challenging to (re)connect with alumni who stayed in the program for fewer semesters and/or have not completed their degree. We expect that this will continue to pose a challenge for future analyses, and are aware that additional efforts are needed to connect with and learn from the experiences of these individuals.

## **Alumni Recommendations**

### **Interview Findings**

The interviewee responses regarding the support and resource they needed or would suggest making available for future interns were phrased not as excuses, but rather as reflections about both the program and their own capacity. For example, one of the interviewees said that there could have been clearer communication about the roles, responsibilities, obligations, and commitment expectations of YLT participants, and suggested that clearer communication would help future YLT. This same interviewee also said that in retrospect she should have asked for more help.

The most commonly suggested resource for future YLT was the provision of more general guidance, with five interviewees discussing their own need and future interns' need for this kind of support. For example, the interviewee who left the program early due to transportation issues suggested that transportation would be a critical way to support future YLT, and then added that it would have been helpful to have more guidance as she tried to figure out how to be an adult.

**“** *I think that would have been really helpful at the time [to make] it more known to the interns that [staff and mentors] are there to talk to if you need it, if you need someone to talk to about your home life or about what you need. I think that was there, it was just not, I did not feel it was something that was easily approachable. I do not know if they do that now. (...) It is kind of a weird age where you are trying to be an adult, but you are not really so you are really comparing yourself almost, like, "I do not make enough money," or and then you are in school and that is a lot of pressure to be successful because you are kind of comparing. (...) I think that definitely needs to be there for people who are going through that transition from high school to college and becoming an adult. (Interview Cohort 6-11.5)*

One of the individuals who lacked family support suggested that MA'O could host family events, which she felt would get families involved and aware of what their children are doing, resulting in greater support for their pursuit of a college degree.

“ *I think maybe what would possibly help more, is bringing in their family members of the YLT, because there was not a lot of that when I was there. (...) a formal invitation of saying, "Hey, we are going to have an event for the family to come and see what you do. (...) "Come and see what your kid does." (...) I think that would have helped me and my dad, as far as our relationship. And him just being more accepting like, "Oh, yeah. Okay, this is a good place for you." I know that some other interns did not have that support either. So, I think if the Kauhale had more events that involved their family members and friends. "Here is an invite. We are going to have a special event for them. They can check out the farm. See how things go. And just really get to meet the interns' mentors." Because that is what the older YLT is. They are mentors to these young, new graduates, or high school graduates. Then, they could see the bonds that the interns are creating and what they are learning.* (Interview Cohort 1-5)

Finally, one of the focus group dialogues included an enthusiastic discussion regarding the possibility for MA'O to host a reunion for past YLT participants, to reinforce bonds and connections amongst the alumni, and to foster a reconnection with MA'O as well.

### Recent Program Refinements

#### Engaging 'Ohana

We note here that the alumni recommendations to engage families came from members of Cohort 1-5. This was the earliest iteration of YLT programming, during the Ho'owaiwai phase of the program (see Appendix C for phase details). YLT programming has recently evolved to better meet this need during the current Mā'ona phase (Cohorts 12+).

Prompted by greater than usual attrition in the first year of Cohort 13 (2018-19), we developed and deployed our first **'Ohana Day** in November 2019. Through this event we aimed to bolster family awareness and support for the youth and their academic journey. To this end we engaged interns and families together in simple farm hana (work) on the land and facilitating meaningful dialogue in a staff supported environment. While we were unable to host 'Ohana Days in 2020 due to COVID-19 restrictions, we are eager to reconvene these events. **The alumni feedback highlights the importance of this kind of 'ohana engagement.**

In our experience, family-related attrition is often fueled by 'ohana pressure to leave school and work more hours, and familial demands to contribute to care of children, elders and ill family members. In this context, we have found focusing on the youth as a leader in their family is more productive than working to get the 'ohana to provide more support.

#### Social-Emotional Learning

In the Mā'ona phase (Cohorts 12+), we have also placed greater emphasis on social emotional learning and deepened our practice of trauma-informed care. The need for this support is evident in the alumni's requests for more guidance in their transition to adulthood.

## DISCUSSION

For the past 20 years the YLT program has focused on empowering youth to succeed in college and secure sustaining careers, while grounding them in pilina with each other, ‘āina, and community. We situate this work in a programmatic environment that mimics the strengths of an ‘ohana wherein youth receive wrap-around support, and real, perceived, and institutional barriers are disrupted or removed. Our goal is for youth to find their purpose, grow in their leadership and agency, and pursue educational and workforce opportunities that lead them, their families, and the community toward cultural, social, economic, and spiritual resilience. To this end, the YLT is intended to improve youth outcomes in the areas of education, careers, wages, leadership, holistic health, food security, food sovereignty, community connectedness, and civic engagement. Ultimately, this is intended to grow future ancestors dedicated to intergenerational leadership, rooted to place, and committed to their community.

### *Theory of Change In Action*

Our intention for the foregoing analysis was to comprehensively evaluate the YLT program and its outcomes for participants and, by extension, their families and the community vis-à-vis our organizational theory of change and programmatic goals and objectives. Through this rigorous analysis we aim to build on and deepen our understanding of the stories of YLT alumni that we have heard and witnessed over the years. As noted at the start of this report, we initiated the project from a space of wonder and curiosity, with the goal of investigating the hypotheses embedded in MA’O’s theory of change regarding the immediate and cascading individual and communal changes that stem from educating and empowering youth. This effort is in effect a “catch up” – bringing us up to date with a snapshot of the current status of the alumni, and their current reflections on what the YLT experience meant to them at the time and since, regardless of how long it has been since they were in the program.

**The abundance of data and narratives shared in the Results section of this report affirm the core tenets of the YLT theory of change: that we can empower youth to grow into powerful agents of change, and that as they chart their own paths they are creating powerful examples of the possible for each other, their families, and their communities, thereby laying the foundation for intergenerational transformational change.**

In summary, the majority of alumni reported that through the YLT they improved their capacity, agency, and well-being, accessed helpful resources, developed workplace competencies and skills, increased their appreciation for ‘āina and social and cultural narratives, deepened their interest in community change, and grew in their valuation of college, ‘āina-based and life-long learning. They shared stories of transformative experiences through which they developed their purpose and self-determination, and highlighted the critical role of strengthening interpersonal relationships. Respondents also reported that they continue to apply the hard skills, values, and community-orientation they developed while in the YLT in their current professional and personal lives. They articulated a nuanced and lived experience of leadership and the pursuit of meaningful careers, as well as deep community connectedness and engagement. Finally, the alumni also demonstrated measurable gains in education attainment, certain areas of holistic health, and food security and food sovereignty, as compared to relevant peer groups.

### *Remaining Challenges*

We note that the affirming statements of agency, capacity, and positive outcomes shared by many alumni were also accompanied by indicators of the challenges still faced by many individuals. This was evident, for example, in the relatively low wages earned by alumni which may reflect a lack of financial stability, the experience of food insecurity shared by a third of alumni, the loss of employment and reductions in livelihood during the pandemic, the persistent incidence of high risk for diabetes, and the statements of loss of community connection

by many of those who no longer live in Wai‘anae. Here we also highlight our outstanding interest in hearing from more alumni to inform a more comprehensive understanding of their individual lives and collective experience. In particular, we note our unresolved concern regarding the disproportionately low engagement in this survey effort by those who left the YLT program early and/or have not attained an associate degree.

### ***Structural & Systemic Context & Interplay***

We find it particularly notable that alumni reported their greatest gains stemming from the YLT in areas where youth have the most personal agency, such as future hopes, confidence, and advocating for their education goals. They reported slightly more modest gains in areas prone to more influence by external factors like financial circumstances and family kuleana. **This raises interesting and challenging questions regarding the complex interplay between youth’s experience *within* the YLT program and their structural, environmental, and familial context, which can impinge upon and/or bolster individual experiences and outcomes.** This interplay surfaced repeatedly throughout our analysis, for example as manifested in the tension between personal aspirations, financial resources, and physical access in the areas of food security outcomes and career opportunities.

We are keen to use future inquiries to further explore the role of structural, systemic, and environmental factors, how they impinge upon and/or enhance opportunities for individual youth during and after participation in the YLT, and what programming most effectively and constructively intervenes in these cycles. In particular, we want to learn more about why, how, and when programmatic support is strong enough to balance or outweigh these countervailing challenges, and why and when it is not.

### ***Intergenerational Hopes & Social Networks***

The structural, systemic framework brings us to another related overarching theme that emerged from our analysis: the intergenerational impact of the YLT and the hopes that alumni harbor for future generations. We see these two issues as fundamentally intertwined: individual capacity and commitment is required to influence structural change, which will in turn improve systems to better serve future generations. Throughout the analysis we hear the alumni’s resounding statements of hope and aspirations for the well-being of their current and future ‘ohana, often grounded in an articulation of cultural and community-centric values and a commitment to carrying forward a strong work ethic. Most resonant were the many affirmations of the MA‘O philosophy of “love, respect, and the willingness to work.”

In turn, the intergenerational theme points to the role of social networks, which arose repeatedly throughout our analysis. This was clearly evident in the changes to YLT participants’ ‘ohana attitudes and behaviors in multiple areas (from community aspirations to ‘āina appreciation to food sovereignty practices), which alumni attributed to their participation in the program. It is also reflected in the alumni’s reports of inspiring others to attend college and eat more vegetables. **These findings reinforce the promising early findings of the Maui Ola Study that indicated a YLT multiplier effect. Once again, we see that youth exert an influence on their family members, thus amplifying the benefits of program to participants’ social networks.**

### ***YLT & ‘Āina as ‘Ohana***

Witnessing the transmission of attitudes and behavior across social networks brings us back to the YLT theory of change, and our expectation that MA‘O can serve as an extension of ‘ohana for youth participants. We see this manifesting in several ways throughout the analysis, including the role of MA‘O in the generational transmission of knowledge, skills, and capacity. Echoed throughout the analysis, this was particularly clear in the relationships and pilina that youth identified as critical to their success during and after the YLT. Most notably this includes the relationships between youth within and across cohorts, which effectively mimic the kaikua‘ana and kakaina (elder and younger) sibling relationship. We highlight here the importance of the overlapping two-year cohort structure: an intern starts as a novice, looking up to the ‘elder’ interns for guidance, expertise, and proof of what



is possible, after which they in turn progress into the elder role and take on kuleana for the success of those who follow. In this vein, it is striking that personal and interpersonal relationships were identified as the area of greatest gain during the YLT for those who have attained a degree, and that this indicator reflects the greatest disparity for those who have not attained a degree. This corroborates our experience that pilina between peers, across cohorts, and with staff and mentors, is a critical predictor of whether YLT participants will flourish.

Given the resounding affirmation from alumni that their appreciation for and connection to ‘āina increased through their participation in the YLT, we note that the positive outcomes stemming from the YLT may also be attributed to youth’s development of this fundamental pilina with the land itself as ‘ohana. We see in this the living embodiment of the following dimension of our theory of change: *as an ‘āina-based learning environment in which outcomes matter, youth at MA’O connect to their place as a matter of identity, self-esteem, pride, relationship, and connection to both individual and collective purpose and context.*

### ***Grounding Analysis of Work & Wages***

Throughout the analysis we see alumni recognizing the role the YLT played in growing their capacity (particularly for establishing and maintaining interpersonal relationship), building their confidence, strengthening their values, transmitting applicable skills, and situating work in a community-serving framework. The discussions and insights regarding alumni work outcomes stemming from this project have constructively problematized our understanding of ‘sustaining careers’ and ‘meaningful work,’ causing us to re-examine our assumptions and perspectives about the acquisition and application of skills, opportunities to lead and mentor regardless of title or position, aspirations to do work that serves community, the imperative for financial stability, and the complex personal and structural challenges that can enhance or impede access to opportunities and career mobility. These learnings (and the resulting new questions) regarding alumni’s leadership, career, and wage outcomes are of particular salience during the Mā’ona expansion effort, as MA’O works with youth, educational institutions, and employers to forge clearer and stronger college to career pathways within the MA’O ‘auwai, at MA’O as an employer, and in the broader community.

### ***A Picture of Mixed Health***

This analysis yielded a complicated, sometimes conflicting picture of alumni health outcomes. We learned that alumni maintain healthier behaviors than their peers (less smoking and drinking of alcohol), that they are at a lower risk of obesity than their peers, and that they continue to consume vegetables at a higher variety, volume, and frequency than their peers. We also confirmed that microbiome data is a constructive method for corroborating self-reported vegetable consumption. This veggie outcome appears to be grounded in alumni’s commitment to the principles and practices of food sovereignty. However, we also learned that many alumni continue to be at a high risk of being diagnosed with type-2 diabetes, even more so than their peers. We are left with more questions than ever about if, why, and how diabetes risk plays out for the alumni over time. We are keen to continue build on the alumni data and the data from the Maui Ola Study to conduct further longitudinal research to further interrogate persistence of positive health behaviors across time for discreet individuals.

## **KŪLIA I KA NU’U - LEARNING FROM & BUILDING ON THE DIALOGUES**

Our goal at the outset of this project was to deepen and formalize MA’O’s learning philosophy and practices in service of youth, family, and community outcomes. We aimed to develop an initial model for ongoing evaluation, research, and inquiries into post-YLT program impact, and to inform our emerging organizational evaluation strategy. Our work was grounded in MA’O’s long-held practice of kūlia i ka nu’u, the continuous pursuit of excellence through inquiry, reflection, and refinement: **the feedback loop for our kuleana to our future ancestors.**

Our intention in using a community-based participatory research approach was to grow our knowledge and understanding of the YLT program and its outcomes through the application of our partners' expertise, while grounding the inquiry in our lived experience as community practitioners. This application of the practices of makawalu (seeing through many perspectives; literally 'eight eyes') and kilo (direct observation, generally as a practitioner) has affirmed much of our experiential knowledge, while productively complicating some of our assumptions and inviting us to look at our work with (k)new eyes and a (k)new perspective.

By leading this research partnership ourselves, rather than outsourcing the evaluation work, we undertook an organizational learning journey. We believe that what we may have sacrificed in terms of objectivity, we gained in internal capacity. We also ensured the salience of the inquiry to our current programming, ongoing expansion work, and future aspirations.

The Dialogues have brought us up to date with a snapshot of the current status of a substantial number of the YLT alumni, and insight into their reflections on how the YLT experience served them at the time and what it has meant to them since. This lays the groundwork for ongoing engagement and dialogue, through which we are committed to pursuing the complications, confusions, wonderings, and further inquiries that emerged from this initial effort. We anticipate that this will include a longitudinal and/or periodic ongoing inquiry, to be designed through our current (2021) evaluation strategy work.

As we translate the process learnings from this effort, we plan to develop a more systematic method of engaging with the YLT participants after they complete the program, and are currently exploring ideas for ongoing support, mentorship, and mutual learning opportunities. We are also refining existing survey tools to allow for the continuous tracking of program effects, including administering a trimmed pretest of the ongoing alumni the questionnaire to every future YLT participant. Finally, we are retooling our exit interview for all interns, including those who attrition out of the program prior to graduation, to better gather and analyze interns' mana'o about best practices and areas for improvement.

In the next chapter of this work we look forward to ongoing pilina building with and amongst the alumni community. We hope that this will enable us to hear and learn from additional alumni, including those who didn't stay in the program as long, or get their degree, or who were not happy with their YLT experience. Most vitally, we look forward to hearing the alumni's reactions to this report, and welcome their feedback about how it reflects or deviates from their own perspectives about how to gauge the impact of the YLT and its outcomes in their lives, their families, and the community.

We anticipate that this broader reach will be facilitated in part by the alumni who did participate in this inaugural effort, thereby strengthening their pilina with MA'O and each other. We intend to further deepen these rekindled connections through in person events (once COVID-19 restrictions are lifted) that ground alumni in their connection with the Wai'anae 'āina, as well as online events that include alumni who no longer reside on O'ahu. We hope that this will also strengthen the mutual trust and shared curiosity required for future collaborative, longitudinal inquiries.

The work ahead is to honor the voices of our future ancestors by translating this research into meaningful individual, program, and community impact. To this end, it is now our kuleana to return this learning to the system to evolve and refine our programming, and to share it with our education, employment, community, and funding partners and with policy makers to elevate our collective knowledge and capacity to grow the health and well-being of the youth, their families, and community.

## DEFINITION OF TERMS

‘āina	Land, lit. <i>that which feeds</i>
‘auwai	pathway; literally a ditch, including for irrigation water
Ho‘ona‘auao	to educate
‘ike Hawai‘i	traditional knowledge
kuleana	responsibility; simultaneously a right and a privilege
mahi‘ai	farmer
mana‘o	thought, idea, belief, opinion, theory, thesis, intention, meaning, suggestion
mā‘ona	plenty, full
mo‘okū‘auhau	genealogy
mo‘olelo	story, history
moku	a geographical region in Hawai‘i
nohona	cultural practices
‘ohana	family
‘ōlelo	language
‘ōlele Hawai‘i	Hawaiian language
oli	traditional chant
‘ōpio	youth
pono	good, righteous

**Kauhale:** the combination MA‘O Organic Farms and Searider Productions through the Youth Leadership Training Program.

**MA‘O Organic Farms (MA‘O):** a social enterprise based on traditional Hawaiian values and practices committed to building a future of mā‘ona, of plenty, by connecting youth and land through the daily practice of aloha ‘āina, empowering youth to succeed in college and secure sustaining careers, and growing organic produce that yields individual and communal vitality.

**Searider Productions at Wai‘anae High School (SPWHS):** is a collective of teachers, students and programs dedicated to helping the students of the Wai‘anae complex succeed in all their endeavors.

**Wai‘anae Community Re-Development Corporation (WCRC):** community-based non-profit organization established in 2001 by the Wai‘anae community. WCRC encompasses MA‘O Organic Farms.

## APPENDICES

## **Appendix A. Project Team**

### **Hawai'i Integrated Analytics LLC**

Ruben Juarez, PhD – Research Co-Investigator  
Alika Maunakea, PhD – Research Co-Investigator

### **University of Hawai'i West O'ahu**

Christina Mello, PhD – Research Co-Investigator  
Oriana Danby – Student Intern

### **Consultants**

Jackie Ng-Osorio, DrPH, Ng-Osorio Consulting – Research Co-Investigator  
Chuck Giuli, PhD, Pacific Resources Education & Learning (Retired) – Research Co-Investigator

### **WCRC-MA'O Organic Farms**

Claire Sullivan, Lead Principal Investigator  
J. Kukui Maunakea-Forth, Co-Principal Investigator  
Chelsie Onaga, Communications Coordinator/Community Practitioner  
Brianne Imada, Vocational & Workforce Specialist/Community Practitioner

## Appendix B. MA'O YLT Theory of Change – 2000-2020 Iterations

Our theory of change posits that a social enterprise can mimic the strengths of an 'ohana (family). Like the interns' 'ohana, the MA'O 'ohana is an extension of the 'ohana in community we partner with our families as co-parent, co-educator and co-employer by empowering youth to grow in their leadership and agency, by providing educational opportunities, resources and support, and by providing workforce development and training. Our logic model is designed to help youth find their purpose, connect with their culture and history, develop knowledge and skills, and grow and mobilize networks and partners. In practice, youth invest in themselves by working on the farm while matriculating through an edu-preneurial 'auwai (edu-preneurial pathway) that stretches from pre-K to graduate studies and eventually into the workforce.

MA'O works to empower Wai`anae youth, especially those of native Hawaiian descent, to become advocates of their own lives, empowered to effectively engage and pursue educational and workforce opportunities that lead them toward cultural, social, economic, and spiritual resilience. Specifically, the 'auwai programs engage 'ōpio in both, the rigor of academic pursuit as well as workplace excellence. The 'auwai or the edu-preneurial environment supports the 'ōpio to persist, grow and flourish in their pathways, to stay in school, to remain employed, and to continue to strive toward productive personal and professional goals and aspirations. As an 'āina based, place-based learning environment in which outcomes matter, youth connect to their place as a matter of identity, self-esteem, pride, relationship and connection to both individual and collective purpose/context.

Youth are the intersection of their own mo'okū'auhau (genealogy) and mo'olelo (story) and through their relationship with MA'O are the facilitators of their communities past, present and future. Restoration of connection to the 'āina through 'ōlelo (language) and nohona (cultural practices) is accomplished through the daily development, articulation, implementation and reflection/assessment of our 'ike Hawai'i (traditional knowledge) and 'ike kupuna (ancestral knowledge). Youth literally and metaphorically engage in the hana (work) of "feeding" the physical, cultural, mental, social, and spiritual hunger. In the work, we are able to engage in the healing and transformation of ourselves through the generational transmission of knowledge, past-present-future. Through simple instruction and teaching of 'ōlelo, of oli (chants), of Hawaiian protocol, and practices, we can root youth to a strong foundation of cultural and traditional values, language and practice of mahi'ai and mo'olelo, we will ensure integrity and authenticity in our presentation of 'olelo makuahine (our mother tongue).

Youth are vested partners and collaborators in the scaling up and expansion of this established and successful social enterprise called MA'O. MA'O invests heavily into academic preparation and workforce training of Wai'anae youth, particularly native Hawaiian youth who are often the most vulnerable and at-risk populations. In social enterprises, we are able to teach 21st century workforce skills such as cooperation, communication, critical thinking, problem solving and creativity - immersing 'ōpio in a relevant and consequential environment that builds knowledge, skillsets and experiences that employers need and want today. It is in the daily-ness of the work that youth are contributing to the creation and development of culturally and communally relevant, locally-owned business and industry sectors that are promoting pono education to workforce pathways.

## **Appendix C. Evolution of the Youth Leadership Training Program**

### **1. Pilot Farm Ed Program**

**2000-2001**

- Education Focus: Organic Farming
- Education Resources - Alu Like, O'ahu Work Links
- Personnel Resources
  - Gary Maunakea\_Forth
  - Kukui Mauaneka-Forth
  - Solomon Enos

### **2. Pre-Youth Leadership Training Program**

**Program Focus: Organic Farm Development**

**2001 - 2003**

- Youth Participants: 18-24 youth interested in farming, aloha 'āina
- Education Focus: 10-month long work training & experience (Certificate)
- Education Resources: USDA NIFA grant, ANA grant
- Curriculum Support: KS support for workforce development, support from LCC-OCET
- Farm Context: 5-Acre Farm, leased land
- Personnel Resources:
  - Uncle William Aila, Farm Manager, first employee
  - Gary Maunakea-Forth, Organic Farmer, Business Director
  - Executive Director/Program Director Kukui Maunakea-Forth
  - Summer Shimabukuro, METS Practicum

### **3. Youth Leadership Training Program**

**Program Focus: Nā Alaka'i**

**2003 - 2006**

- Youth Participants: Pre-Cohort to Cohort 1
- Education Focus: AA Liberal Arts, Certificate In CFS
- Education Resources: ANA Wai'anae Organic Farmers Cooperative, NHIAC Grant
- Curriculum Support: Leeward Community College & LCC Wai'anae
- New Programs or Program Innovations:
  - Step Up Internship
- Farm Context: 5-Acre Farm, Gardens at WIS and WHS
- Education Personnel:
  - Uncle William Aila, Farm Manager
  - Gary Maunakea-Forth, Organic Farmer, Business Director
  - Executive Director/Program Director Kukui Maunakea-Forth
  - Education Director Summer Shimabukuro
  - Education Specialist Kamuela Enos

### **4. Kauhale YLT**

**Program Focus: Ho'owaiwai**

**2006-2013**

- Youth Participants: Cohorts 1-6 (addition of the .5 cohorts in Cohort 6)
- Education Program Design: AA Liberal Arts with Certificate in CFS and DMED

- Education Resources: ANA Kauhale Center for Organic Agriculture, NHEP Ho'owaiwai, W.K. Kellogg Foundation
- Curriculum Support: Leeward Community College & LCC Wai'anae
- New Programs or Program Innovations:
  - HYLIT internships & Externships
  - Individual Development Accounts
  - Winter Ramp Up
- Farm Context: Addition of 11 acres and then 8 acres - total 24-acre farm
- Personnel Resources:
  - Program Director Summer Shimabukuro
  - Program Evaluation & New Programs Malia Morales
  - Community Engagement Kamuela Enos
  - Education Specialists
    - Boboy Kaawa-Flores, Kapela Eli (NHIAC era)
    - Fred Reppun, Noelle Takemoto, Kasha Ho (NHEP era)
    - Angela Hoppe-Cruz, Shelley Muneoka, Nicki Manivanh & Terri Langley (WKKF era)

## **5. Kauhale YLT 'Auwai**

### **Program Focus: Ho'oulu**

#### **2013-2017**

- Youth Participants: Cohorts 6-12
- Education Program Design: AA Liberal Arts with Certificate in Community Food Systems and Digital Media
- Education Resources: ANA Hīna'ī Grant Kamehameha Schools, Hau'oli Mau Loa Foundation
- New Programs or Program Innovations:
- Personnel Resources:
  - Program Director K. Maunakea-Forth
  - Farm Manager Kauai Sana
  - Kamuela Enos Social Enterprise Director
  - Education Specialists Nicki Manivanh, Angela Hoppe Cruz, MS Practicum: Tori-Lyn Smith
- Farm Context: 24-acre Farm, Regional, Pan-Moku Program Expansion exploration

## **6. Kauhale YLT 'Auwai**

### **Program Focus: Mā'ona**

#### **2017-2020**

- Youth Participants: Cohorts 12-15
- Education Program Design: AA Liberal Arts, all Certificates
- Education Resources: Kamehameha Schools, Hau'oli Mau Loa Foundation
- Personnel Resources:
  - Program Director K. Maunakea-Forth
  - Farm Manager Kauai Sana
  - Kamuela Enos Social Enterprise Director (transitions at end of 2019)
  - Claire Sullivan, Director of Development & Impact
  - Youth Empowerment Specialist Tori-Lyn Smith
- Farm Context: 45 Acres and then 236 Acres added (= 281)



## Appendix D. 'Ohana Dialogue (Focus Group) Questions

- Are we going to learn what we want to learn with these questions?
- Should we change how we are asking any of our questions?
- What are we not asking that we should?
- How easy was it to take the survey?
- How long did it take approximately?
- Questions or concerns about confidentiality?
- How do we build trust on confidentiality and other aspects of the survey process itself?
- Are the survey(\$20) and biometric (\$50) incentives appropriate?
- Biometrics process
  - Discussion of self-reporting and provision of physical samples.
- Recruitment
  - Securing participation and incentives.

In the Dialogues participants were also asked to share their perspectives on several substantive questions:

- What did you learn/experience during your time in the YLT that has impacted you the most?
- During your time in the YLT and/or now, has growing, buying, and/or preparing healthy local food, or telling community grounded stories, impacted the relationships in your life with friends, family, colleagues, or community?
- Have you been able to find meaningful work? What makes this work meaningful to you? Why or why not?
- What is your current relationship to food sovereignty? (Defined as having access to healthy, affordable, and culturally relevant foods, and the ability to have a say in how food is produced and sold).

## Appendix E. Interview Questions

### Community /'Āina Orientation

1. What have you been doing since your time in the YLT and where do you live now?
2. Do you currently have a place, group, and/or organization that you consider to be your community?
  - a) Is your community located where you live?
  - b) In which ways are you involved in your community and how do you feel connected to it?

### Socioeconomic Status

3. Where do you find meaning in your life?
  - i. *For example - work, family, volunteering, other.*
4. Have you been able to find meaningful work?
  - a) What makes this work meaningful to you?
  - b) Is there anything in particular that has made it easy or difficult to find meaningful work?
    - i. *Consider factors like job availability, commute time, incarceration history, etc.*
  - c) What are your career plans or aspirations?
  - d) Has the coronavirus pandemic affected you or your employment?
  - e) If you've lost your job, what are your plans for the future? For finding work/paying bills?
  - f) Was the education and/or skills you learned during your time as a part of the YLT program helpful?
    - i. *For example - showing up on time, communicating with others, leading a team.*
  - g) Are there other skills you learned elsewhere that have enabled you to find meaningful work?
    - i. *For example - certifications, training, internships.*

### Education Attainment

5. Is college education something that you value or that has positively impacted your life or career aspirations?
  - a) Was your perspective impacted by the YLT program?
  - b) How do your family or friends view education?
    - i. Was their perspective impacted by your participation in the YLT program?

### Health Status

6. Do you have access to healthy food?
  - a) If so, how often and what types of food do you generally eat?
  - b) Where do you get it from?
    - ii. Do you shop at farmers' markets or buy locally produced foods?
    - iii. Do you grow/fish/hunt/collect any of your own food?
      1. Do you sell any of it or turn anything into a product to sell?
      2. If so, what and where do you sell it?
      3. Do you know where any of your food is grown and produced? If so, where?
  - c) Is healthy food affordable for you? Why or why not?
  - d) Of the healthy food you have access to, do you use any of it for cultural reasons or meals?
7. Are there values or hopes that you have for your children or future generations in general?
8. When you face challenges or difficulties, how do you deal with them?
  - i. *For example, if you have disappointment at work, trouble with family...*
9. Do you see ways that your and/or your family's health and well-being improved as a result of the YLT?

### Community /'Āina Orientation

10. What is your current relationship with 'āina?  
a) Was this impacted by the YLT program?

#### *YLT Experience*

11. What did you learn/experience during your time in the YLT that you believe has impacted you the most?  
a) For example, connection to 'āina, Hawaiian culture, community, importance of education, specific skills, individuals who influenced you, etc.
12. Did you complete your AA degree while at YLT, or did you leave the YLT before you completed your AA degree? If so, why?  
ii. *If we know they've already completed college then ask what they completed while at MA'O.*  
iii. *For example, academic challenges, financial pressure, lack of family support.*
13. What can MA'O and the Kauhale provide the YLT program that you think would help a future student of the program?  
a) Were there any resources or support that you needed more of during the program?  
iv. *For example - childcare, transportation, family support, etc.*
14. Are you interested in reconnecting with other past YLT participants from your and/or other cohorts?  
b) If so, how would you like to connect - online, at MA'O, other?  
c) Are you interested in engaging in content facilitated by MA'O staff - seminars, talk-story sessions, etc.?

#### *Summary*

15. Is there anything else that you'd like to share with us today that we didn't ask about?

## REFERENCES

Chavis, D.M., Lee, K.S., & Acosta J.D. The Sense of Community (SCI) Revised: The Reliability and Validity of the SCI-2. Paper presented at the 2nd International Community Psychology Conference, Lisboa, Portugal (2018)

Fraser, Alec, Stephanie Tan, Mylene Lagarde, Nicholas Mays. "Narratives of promise, narratives of caution: A review of the literature on Social Impact Bonds." *Social Policy & Administration*. June 2016.  
[https://s3.eu-west-2.amazonaws.com/golab.prod/documents/Narratives\\_of\\_Promise\\_Narratives\\_of\\_Caution\\_-\\_A\\_Review\\_of\\_the\\_Literature\\_on.pdf](https://s3.eu-west-2.amazonaws.com/golab.prod/documents/Narratives_of_Promise_Narratives_of_Caution_-_A_Review_of_the_Literature_on.pdf)

Lee, Stephanie, Melissa Oshiro, Laura Hsu, Opal Vanessa Buchthal, and Tetine Sentell. "Public Health Hotline: Neighborhoods and Health in Hawai'i: Considering Food Accessibility and Affordability." *Hawaii Journal of Medicine and Public Health*. 2012 Aug; 71(8): 232-237.  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3419825/>

Morelli, Paula T. and Peter Mataira. "Indigenizing Evaluation Research: A Long-Awaited Paradigm Shift." *Journal of Indigenous Voices in Social Work*. Volume 1, Issue 2. December 2010

Roy, Michael J., McHugh, Neil, & Sinclair, Stephen. "A Critical Reflection on Social Impact Bonds" *Stanford Social Innovation Review*. May 2018.  
[https://ssir.org/articles/entry/a\\_critical\\_reflection\\_on\\_social\\_impact\\_bonds#](https://ssir.org/articles/entry/a_critical_reflection_on_social_impact_bonds#) (accessed on April 20, 2021)