



Attitudes and Behaviors about Local Food in Hawai'i

Native Hawaiian perspectives on wellbeing emphasize relationships, interconnections, and balance. **'Imi Pono** seeks to provide a fuller picture of wellbeing among Native Hawaiians and Hawai'i residents in order to supplement data from surveys that are narrowly focused or deficit-based. The survey is a partnership among Kamehameha Schools, Lili'uokalani Trust, the Office of Hawaiian Affairs, and Papa Ola Lokahi.

Key Findings

1. About one in six Hawai'i residents (18%) experience food insecurity, **skipping or reducing meals** on a weekly or daily basis.
2. Native Hawaiians (25%) and households with school-age children (ages 3-18) (23%) **experience food insecurity** at rates higher than the statewide population.
3. Families living paycheck to paycheck and Native Hawaiian households **eat local less often** than their counterparts. However, Native Hawaiians (25%) are twice as likely as non-Hawaiians (11%) to source their meals by hunting and fishing.
4. The **lower cost and convenience** of imported food are the primary barriers to residents accessing local food. In addition, the cost is a more significant factor for Native Hawaiians (62%) than non-Hawaiians (52%).
5. The top three things that would encourage Hawai'i residents to **grow or raise their food** are additional space (43%), access to starter plants and animals (32%), and training and workshops (31%).



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Purpose

Local Food in Hawai'i

This brief examines attitudes and behaviors about local food among Hawai'i residents. Local food is defined as crops, animals, and animal byproducts grown or raised in Hawai'i. More than 80 percent of the food consumed in Hawai'i is imported from elsewhere.^{1,2,3} Local agriculture is essential to a food system

because it buffers regional supply-chain disruptions and strengthens connections between communities and the land. Understanding food security and local food habits, especially barriers and opportunities among different groups, may inform actions aimed at making Hawai'i healthier and more food-secure in the future.

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Sample and Methods

Data were collected via electronic survey from February through April 2022. A total of 1,277 Hawai'i residents ages 18 and older participated in the survey, with 52% identifying as Native Hawaiian and 48% as non-Hawaiian. Among all respondents, 28% are from Honolulu County, 26% from Maui County, 24% from Hawai'i County, and 22% from Kaua'i County. The confidence interval for the state—including breakouts for Native Hawaiians and non-Hawaiians—is 95% or higher. The county-level confidence interval is 90%. To access all data and briefs from the 'Imi Pono Survey, please visit: https://www.ksbe.edu/research/imi_pono_hawaii_wellbeing_survey/. Data are available to download and explore through an interactive dashboard. In some cases, data presented in this brief are for a subset of the entire respondent sample (e.g., adults ages 25 and older). Therefore, data in this brief may not match what is displayed for all respondents in the dashboard.

Given the data collection methodology, **survey respondents are likely more financially affluent and hold higher education degrees** than the general Native Hawaiian and Hawai'i population.

¹ Lyte, B. (2021). *How Hawaii squandered its food security - and what it will take to get it back*. Honolulu Civil Beat. <https://www.civilbeat.org/2021/04/how-hawaii-squandered-its-food-security-and-what-it-will-take-to-get-it-back/>

² Lauer, N. C. (2018). *Where does Hawaii get its food?* U.S. News. <https://www.usnews.com/news/best-states/articles/2018-11-19/where-does-hawaii-get-its-food>

³ Loke, M. K., & Leung, P. S. (2013). Hawai'i's food consumption and supply sources: Benchmark estimates and measurement issues. *Agricultural and Food Economics*, 1(1). <https://doi.org/10.1186/2193-7532-1-10>

Context

Food as Culture

‘Āina means “that which feeds” and signifies a relationship between kānaka (people) and ‘āina that is reciprocal and mutually sustaining. In addition to health, Native Hawaiians associate food with spiritual, social, and ecological benefits as well as obligations.^{4,5} Places where people and lands thrive, called ‘āina momona, set the standard for living. Food is also a significant part of Hawai'i's local culture, representing diverse ethnicities, reinforcing social ties, and defining communities. The COVID-19 pandemic accelerated public interest in local agriculture and food security, which is reflected in the work of **Transforming Hawai'i's Food System Together**.⁶



“We need to reKALOnize Hawai'i and decolonize our minds, food systems, and political systems.”

- Native Hawaiian, Hawai'i County

Food as Community Health

Food practices and preferences are important factors that shape culture and wellbeing. A food system is comprised of many parts spanning production, distribution, consumption, and waste. A strong, local agriculture industry contributes to food resilience by lessening dependence on external supply chains and investing in community-owned businesses.⁷ Beyond increasing food security and economic activity, studies highlight the unique value of local food on individual and community health.⁸ The global “food as medicine” movement frames a nutritious diet as both a health advantage and a human right.⁹

⁴ Pukui, M. K., Haertig, E.W., & Lee, C. A. (1972). *Nānā i Ke Kumu (Look to the Source) Volume 1*. Nā Puke Ulukau. <https://ulukau.org/elib/cgi-bin/library?e=d-0qlcc1-000Sec--11haw-50-20-frameset-book--1-+010escapewin&a=d&d=D0&toc=0>

⁵ Beebe, J. K., Amshoff, Y., Ho-Lastimosa, I., Moayedi, G., Bradley, A. L. C., Kim, I. N., Casson, N., Protzman, R., Espiritu, D., Spencer, M. S., & Chung-Do, J. J. (2020). *Reconnecting rural native Hawaiian families to food through aquaponics*. MDPI. <https://www.mdpi.com/2313-5778/4/1/9>

⁶ Miles, A., & Merrigan, K. (2020). *If we get food right, we get everything right*. Honolulu Civil Beat. <https://www.civilbeat.org/2020/04/if-we-get-food-right-we-get-everything-right/>

⁷ McDaniel, T., Soto Mas, F., & Sussman, A. L. (2021). Growing connections: Local Food Systems and community resilience. *Society & Natural Resources*, 34(10), 1375–1393. <https://doi.org/10.1080/08941920.2021.1958965>

⁸ Martinez, S. (2010). *Local food systems: Concepts, impacts, and issues*. U.S. Dept. of Agriculture, Economic Research Service.

⁹ Downer, S., Berkowitz, S. A., Harlan, T. S., Olstad, D. L., & Mozaffarian, D. (2020). Food is medicine: Actions to integrate food and nutrition into healthcare. *BMJ*, 369. <https://doi.org/10.1136/bmj.m2482>

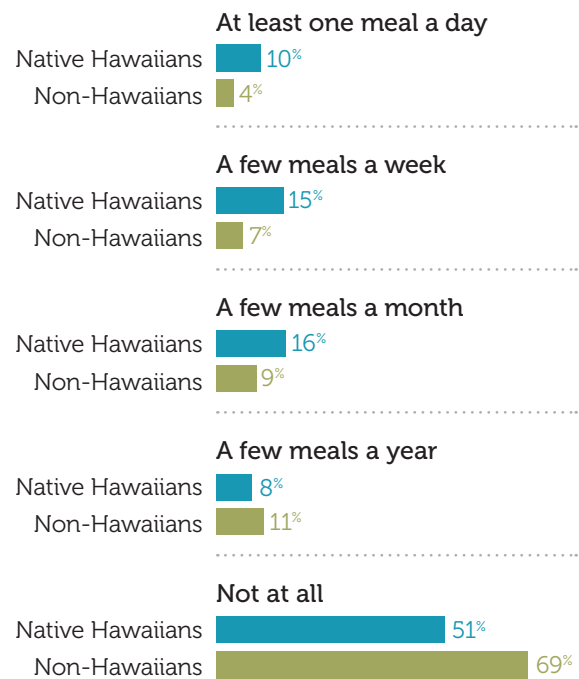
Findings

Native Hawaiians Experience Food Insecurity at Twice the Rate of Non-Hawaiians (25% compared to 11%).

Food insecurity occurs when there is not enough food for every person in a household to live an active, healthy life. Outside of an intentional diet plan, skipping or reducing meals creates nutritional deficits that negatively impact health and education outcomes.^{10,11} About one in six Hawai'i residents (18%) report skipping or reducing at least one meal a day or a few meals a week for financial reasons. Food insecurity is higher in households with school-age children affecting nearly one in four families statewide (23%). Hawai'i County has the highest rate of food insecurity, with over one in five residents (22%) saying they skip or reduce meals on a daily or weekly basis.

Although it is not the only factor, financial problems often contribute to food insecurity. Two out of five Hawai'i residents (42%) report worrying about paying for basic needs like food and housing. Native Hawaiians (52%) report a higher rate of concern than non-Hawaiians (32%). It is not surprising then that Native Hawaiians report food insecurity at a rate more than twice as high as non-Hawaiians (25% compared to 11%) (Figure 1).

Figure 1. In the past 12 months, how many meals did you skip or reduce because money was tight?



¹⁰ Cady, C. L. (2014). Food insecurity as a student issue. *Journal of College and Character*, 15(4).

¹¹ Lee, J. S., Gundersen, C., Cook, J., Laraia, B., & Johnson, M. A. (2012). Food insecurity and health across the lifespan. *Advances in Nutrition*, 3(5), 744–745. <https://doi.org/10.3945/an.112.002543>

Findings Cont.

Families Living Paycheck to Paycheck Eat Local Less Often.

Meals prepared with local ingredients tend to be fresher and contain more nutrients. Due to economies of scale and regional distribution networks, imported foods are often a cheaper option for Hawai'i residents. Despite the ubiquity of imported food, three in four Hawai'i residents (77%) say they include local ingredients in a few of their meals each week or more. Maui and Hawai'i county residents report rates higher than the statewide average at 82% and 81%, respectively.

Residents who report living paycheck to paycheck are much less likely to incorporate local foods in their meals on a weekly or daily basis (56%) compared to those who are not as financially constrained (74%). Similarly, Native Hawaiians (74%) report a lower rate of locally sourced meals than non-Hawaiians (81%). Across age groups, residents between the ages of 18 and 24 years (62%) are the least likely to frequently consume locally sourced meals.

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Findings Cont.

Native Hawaiians (25%) Source Meals from Hunting and Fishing at Twice the Rate of Non-Hawaiians (11%).

In some places, local food may be unavailable or harder to find. Hawai'i residents report obtaining local food most often at grocery stores (86%) and farmer's markets (75%). Purchases from farms (outside of farmer's markets) and through Community Supported Agriculture (CSA) boxes are much less frequent (20% and 13%, respectively). Rates are similar across counties except for Kaua'i, where residents are less likely to access local foods at the grocery store (80%) and more likely to sign up for CSA boxes (16%).

More than one in three Hawai'i residents (37%) say they grow or raise food at home, and 6% say they do so elsewhere (e.g., in community gardens). Slightly more non-Hawaiians (40%) report growing or raising food at home compared to Native Hawaiians (35%). However, twice as many Native Hawaiians (25%) access local food by hunting or fishing compared to non-Hawaiians (11%) (Figure 2).

Figure 2. Do you access local foods grown and raised in Hawai'i by hunting or fishing?



Findings Cont.

Access to Land, Starter Plants/Animals, and Training Would Increase Local Food Production and Consumption.

When it comes to transforming Hawai'i's food system, making local nutritious food accessible and affordable can be a game changer. The lower cost (57%) and convenience (31%) of imported food are the primary barriers to Hawai'i residents accessing local food. In particular, cost is a more significant factor for Native Hawaiians (62%) than non-Hawaiians (52%). The convenience of imported food (39%) and not knowing where or how to access local food (17%) are greater barriers for Honolulu County residents than others.

The survey respondents suggest ways to increase access to local food. The top three things that would encourage Hawai'i residents to grow or raise their food are additional space (43%), access to starter plants and animals (32%), and training and workshops (31%). Interventions that would enhance local food production and consumption among Native Hawaiians compared to non-Hawaiians are financial incentives (31% compared to 21%) and tools and equipment (20% compared to 12%) (Figure 3).



Figure 3. What would make you more likely to grow or raise your own food?

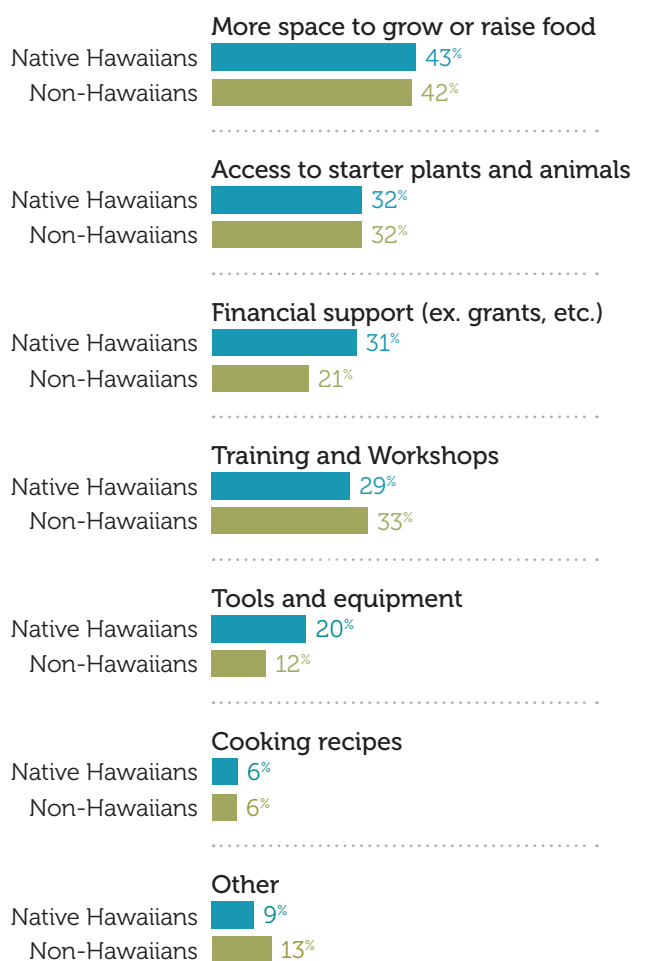


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Local Food Innovations

Food also appeared in the lists Hawai'i residents made about community strengths, community challenges, and important Native Hawaiian issues. Access to food drives, food banks, and farmer's markets along with growing your own food and sharing food with others were mentioned as community strengths. Describing her community, a non-Hawaiian, Kaua'i County resident explains, "People are willing to work together and pitch in when times are difficult, and our abundance of food compared to other areas [is an asset]."

However, food was mentioned more often as a community challenge, particularly when it comes to cost and health. Added to an already high cost of living, inflation is limiting the food choices Hawai'i's families make. A Native Hawaiian resident of Hawai'i County explains, "Unfortunately, food insecurity has become a common hardship for many. The cost of food is rising, forcing many families to make sacrifices in nutrition."

When identified as a Native Hawaiian issue, food was often linked to self-sufficiency, native land rights, and cultural practices. The cultivation of land for food sovereignty was a common notion. "[We need] enough land where Hawaiians can grow their own food...not tiny lots," said a Native Hawaiian living in Hawai'i County.

Innovative projects and resources are responding to increasing public demand for a healthy and resilient food system.

Farmer Education and Training

Education platform for small-scale growers



neversinkcourses.com

Local Food Prescriptions

Program for patients to buy and eat fresh produce



portal.nifa.usda.gov

Agricultural Innovation Park

Central site to promote local food purchasing



hawaiifoodbasket.org

HNL Tool Library

Member-supported tool rental and sharing hub



hnltoollibrary.org

Double Up Food Bux program

Dollar-for-dollar match to Supplemental Nutrition Assistance Program (SNAP)



dabux.org/whats-new

Conclusion

Local foods are not all produced, distributed, consumed, or disposed of in the same manner. However, if implemented sustainably, local food improves health, creates economic opportunity, and reduces environmental impact. The global COVID-19 pandemic and rising inflation present challenges to food security. Additionally, Native Hawaiians and households with school-age children are less food secure than their counterparts.

While Hawai'i residents consume local food fairly often, families living paycheck to paycheck and households with school-age children do so much less frequently. The lower cost and convenience of imported food pose the most significant challenges to local food consumption, especially among Native Hawaiians and economically disadvantaged families. These findings demonstrate a strong connection between financial insecurity and food insecurity.

Native Hawaiians are more likely than non-Hawaiians to access local food by hunting and fishing, whereas non-Hawaiians report slightly higher rates of growing food in home gardens. Access to land, starter plants and animals, and training would help increase local food production and consumption across all groups. Financial incentives and access to tools and equipment would be especially helpful for Native Hawaiians.



Next Steps

1. **Educate residents and visitors** about the significance of local food for community health and Hawai'i's economy.
2. Support community-led efforts like **Transforming Hawai'i's Food System Together** that promote food resiliency and equity.
3. **Increase access to farmer training programs** as well as school and home gardens that emphasize local food and regenerative agriculture.
4. Work with policymakers, landowners, and community leaders to **incentivize sustainable food production** through tool/equipment co-ops, agricultural parks, and food hubs.
5. **Strengthen cross-sector partnerships** along the supply chain (e.g., production, marketing, distribution, and waste) to make local food more accessible and affordable.
6. **Deploy regional food coordinators** to incentivize public and private partnerships that address risks and opportunities for local food.
7. **Conduct studies and evaluate interventions** to highlight promising practices for Hawai'i's local food system.

The Artist



Title: Kanaloa (Abundant Ocean Mural) by Nai'a Lewis
 Contact: naia@saltedlogic.com | Insta: [@salted.logic](https://www.instagram.com/saltedlogic)

Nai'a Lewis

Art in the traditional sense is often my medium of expression but I also work as a healer, maker, communicator, community organizer, creative mentor, and life transformation coach.

Developed in collaboration with Hālau Kū Māna students, the Kanaloa mural depicts the ocean realm from where all life springs; it shows several iconic species for which we kanaka have kuleana to care for. As the students were preparing for a voyage after a year of training and sailing with the Kanehunamoku Voyaging academy, the mural includes a vessel navigating its way across the deep sea. In many ways, this symbolizes the journey we all make in this life. We are never in control of the elements, but we can live with values that allow us to live in harmony with nature and increase our chances not simply for survival but to thrive as a local and global community.