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## Kulia I ka Pono: The Relationship Between Economic Development and Native Hawaiian Culture

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Makana Elaban

POSC 491

April 14, 2020

*Kulia I ka Pono: The Relationship Between Economic Development and Native Hawaiian Culture*

**Research Question: To what extent does economic development conflict with the welfare of native Hawaiians?**

**Introduction**

*Kulia I ka Pono*: to strive for what is right. When I was twelve years old my parents sent me to an overnight summer camp at Kamehameha Schools for one week. I spent a week at *lo'i* (taro) farms knee deep in mud for hours, at *loko i'a* (fishponds) getting sunburnt as I built up rock walls with my new friends, and singing *mele* (songs) and *oli* (chants) that I would later learn I would never be able to forget the tune or lyrics to. These experiences gave me warm memories that I will never forget. However, this week at Kamehameha taught me something very significant. At twelve years old, I learned what it meant to have responsibility given to you at birth. As a native Hawaiian, I have the *kuleana* (responsibility) to not let the Hawaiian culture die. I learned that Hawaiian is not just a culture and an ethnicity, it is a duty. As a *Kanāka Maoli* (native Hawaiian person), I have the birthright honor and privilege to perpetuate the Hawaiian culture. Now at twenty-one years old, I see how this responsibility is a call to action. I have a specific role in society to make the voices of the *Kanāka* heard. At this very moment, *Kanāka Maoli* stand on the summit of Mauna Kea, acting upon their responsibility given to them at birth. The fight to protect the welfare of native Hawaiians and to perpetuate native Hawaiian culture in an economically developing world is not a lost cause. The historical incidents of the past do not

dictate the future of the *lahui* (native Hawaiian community). *Kanāka Maoli* are rising up, making our voices heard, and we will be the ones dictating the economic development in Hawaii for generations to come.

## **Literature Review**

### Economic Development in Hawaii and its Implications: Three Schools of Thought

The topic of economic development in Hawaii has been a topic of concern since the introduction of western values in the nineteenth century. In recent decades, this topic has had a resurgence of attention. Each year brings new contracts for development in sectors of transportation, recreation, education and tourism. With each new proposal, the topic of conflict between economic development and the welfare of native Hawaiians only becomes more polarizing. Interest groups aiming to protect the welfare of native Hawaiians and their culture argue that economic development in Hawaii is in direct conflict with the perpetuation of native Hawaiian culture and negatively affects the welfare of native Hawaiians. This is in stark contrast to groups that argue that economic development takes precedence over the protection of Native Hawaiian welfare and culture, because an unstable economy can lead to an unstable society.

The scholarly debate on this topic can generally be broken down to three schools of thought. The first is a school that contends economic development ought to always take precedence over native Hawaiian culture and religion. Supporters of this school of thought include Toni Feder<sup>1</sup> and the Interest group ImuaTMT (thirty meter telescope)<sup>2</sup> that stresses the importance of economic development in Hawaii in order to strive for deeper innovation and

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<sup>1</sup> Toni Feder, "The Future of Astronomy Hinges on the Thirty Meter Telescope," *Physics Today* 69, no.7 (2016): 31.

<sup>2</sup> "TMT Supporting Education," *Mauna Kea and TMT*, Thirty Meter Telescope, accessed October 12, 2019, <http://www.maunakeaandtmt.org/>.

education. The second is the school of thought interested in protecting native Hawaiian culture and welfare. These scholars argue that economic development comes into direct conflict with and negatively impacts native Hawaiian welfare. Adherents to this school of thought such as Mansel Beckford,<sup>3</sup> Andrea Feeser,<sup>4</sup> Robert Wylie,<sup>5</sup> Jon Matsuoka and Terry Kelly<sup>6</sup> have all taken a case study approach to analyze the debate over economic development in Hawaii and have concluded that economic development always negatively impacts the welfare of native Hawaiians due to land degradation, and native Hawaiians losing their spiritual and ancestral connection to place. The third school of thought believes it is possible for economic development to work in concert with bettering the welfare of native Hawaiians. This happens when cultural and religious values are protected and perpetuated through the continuation of everyday cultural and religious practices. Proponents of this school of thought such as Kathryn Hilgenkamp and Colleen Pescaia,<sup>7</sup> as well as Noelani Goodyear-Ka'opua<sup>8</sup> use specific examples from human health and education to illustrate how western practices and ideologies, when used in conjunction with native Hawaiian cultural values and religion, can boost the economy while also improving native Hawaiian welfare. Although each school of thought has its critics, the most successful

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<sup>3</sup> Mansel G. Blackford, *Pathways to the Present: U.S. Development and Its Consequences in the Pacific* (Honolulu, HI: University of Hawai'i Press, 2007).

<sup>4</sup> Andrea Feeser, *Waikiki: A History of Forgetting and Remembering* (Honolulu: University of Hawai'i Press, 2006).

<sup>5</sup> Robert W. Wylie, "Hana Revisited: Development and Controversy in a Hawaiian Tourism Community," *Tourism Management* 19, no 2. (1998): 171-178.

<sup>6</sup> Jon Matsuoka and Terry Kelly, "The Environmental, Economic, and Social Impacts of Resort Development and Tourism on Native Hawaiians," *Journal of Sociology and Social Welfare* 15, no. 4 (December 1988): 29-44.

<sup>7</sup> Kathryn Hilgenkamp and Colleen Pescaia, "Traditional Hawaiian Healing and Western Influence," *Californian Journal of Health Promotion* 1, no. SI (2003): 34-39.

<sup>8</sup> Noelani Goodyear-Ka'opua, "Rebuilding the 'Auwai: Connecting Ecology, Economy and Education in Hawaiian Schools," *AlterNative: An International Journal of Indigenous Peoples* 5, no. 2 (December 2009): 46-77.

argument comes from the school of thought that emphasizes the need for native Hawaiian cultural perpetuation and general welfare protection, because as history has proven, economic development has been taking precedence over native Hawaiian welfare for centuries. This has resulted in negative impacts to the native Hawaiian community that has expressed feelings of exploitation and neglect by the western ideologies that dictate Hawaii's economy. I however do not believe that this has to be the case. The third school of thought is the school of thought that ought to be pursued because it encourages both economic development and the improvement of native Hawaiian welfare through the perpetuation of native Hawaiian culture.

Supporters of economic development in Hawaii believe that innovation and improving the economy take priority over native Hawaiian welfare and culture, as economic development is vital to a stable and thriving society. One supporter of this school of thought is science author Dr. Toni Feder.<sup>9</sup> In relation to the case of the Mauna Kea telescope, Dr. Feder makes an implicit argument that the Thirty Meter Telescope ought to be on Mauna Kea due to its strategic placement and the advances it would make for astronomy.<sup>10</sup> The situation at Mauna Kea is that a thirty-meter telescope (TMT) is meant to be constructed on the summit of Mauna Kea any day now. However, native Hawaiian interest groups have organized a stand in protest at the base of the road up to the mountain, blocking access for motor vehicles and halting construction. This is a controversial topic because Mauna Kea is believed to hold cultural and religious significance to many native Hawaiians.<sup>11</sup> Dr. Feder explains that Mauna Kea is the best place in the world to

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<sup>9</sup> Feder, "The Future of Astronomy Hinges on the Thirty Meter Telescope," 31.

<sup>10</sup> Ibid.

<sup>11</sup> Michelle Brober Van Dyke, "A New Hawaiian Renaissance: How a Telescope Protest Became a Movement," *The Guardian*, August 17, 2019, <https://www.theguardian.com/us-news/2019/aug/16/hawaii-telescope-protest-mauna-kea>.

build a telescope due to the environment's gentle trade winds and gradual slope.<sup>12</sup> The gentle trade winds are important to allow for clear and vivid photographs that the telescope will produce. The gradual slope is important for the east leveling of the telescope upon its start of construction. She also notes that the mirror to Mauna Kea is in Northern Chile, and that the residents there make a point to welcome telescopes to their home. The Thirty Meter Telescope is supported and funded by Caltech and the University of California, as well as partners from many other foreign countries. Dr. Feder also says that if the Thirty Meter Telescope were to move, it would make the northern hemisphere skies inaccessible.<sup>13</sup> This argument stresses the importance of education, as the telescope will provide advances in astronomy because it will be the largest telescope in the western hemisphere. Through her analysis of the situation on Mauna Kea and her highlights of why the telescope needs to be on Mauna Kea, it is clear that Dr. Feder would argue that economic development ought to be pursued, especially if it has the ability to uncover new findings in astronomy.

Perhaps the largest interest group under this school of thought is the group Imua Thirty Meter Telescope, or "IMUATMT." This group argues that the Thirty Meter Telescope to be built on Mauna Kea will have tremendous positive impacts on the native Hawaiian community, as it will enhance innovation, education, the job market, and the economy.<sup>14</sup> This company attributes Mauna Kea's peak being above 40% of the earth's atmosphere for being the ideal spot to place the thirty-meter telescope, as it will produce the sharpest images and be able to further science education unparalleled to any other telescope built.<sup>15</sup> In terms of economy, the company TMT is

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<sup>12</sup> Feder, 31.

<sup>13</sup> Ibid.

<sup>14</sup> "TMT Supporting Education."

<sup>15</sup> Ibid.

said to provide 300 construction jobs over the course of eight to ten years, paying \$300,000 in annual rent and \$1,000,000 once the telescope is operational.<sup>16</sup> The company claims that of this annual rent, 20% of the money will go to the Office of Hawaiian Affairs.<sup>17</sup> In terms of culture, the company TMT claims, “Out of respect for Hawaiian culture and for the protection of Mauna Kea’s natural resources, we have taken great care to select a site that has no endangered flora or fauna and no known archeological shrines or burial sites.”<sup>18</sup> Here the company acknowledges the need to protect native Hawaiian archeological sites as they are of deep significance to native Hawaiian religion. The company also claims that it will conduct astronomy lessons in *Olelo Hawaii* at the nearby charter schools, adapt the telescope to the landscape to make it only visible from 14% of the island where only 15% of the population lives, as well as incorporate cultural exhibits in the visitor center that will be built.<sup>19</sup> Here the company acknowledges a need for the improvement of the welfare of native Hawaiians and the cultural and religious significance Mauna Kea holds.

This school of thought however does not acknowledge many cultural and societal impacts that this telescope will bring, and fails to acknowledge any psychological trauma the erection of this telescope will have on the native Hawaiian community, specifically those who still practice the ancient Hawaiian religion and go to Mauna Kea to pray to their ancestors and their gods. As Mauna Kea is highest mountain in Hawaii, it is religiously significant because it is where humans are the closest to the gods. The first scholar, Dr. Toni Feder presents a clear bias when it comes to the protestors at Mauna Kea when she states that the mirror to Mauna Kea, Northern

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<sup>16</sup> Ibid.

<sup>17</sup> Ibid.

<sup>18</sup> Ibid.

<sup>19</sup> Ibid.

Chile, makes a point to welcome telescopes to their home.<sup>20</sup> This is a blatant disregard for cultural significance and sensitivity towards the destruction of a religious site. This article also fails to mention the cost of building the telescope on Mauna Kea or if it will bring in any money to the state and its residents. The company in charge of building the telescope justifies its acts by attempting to appease the native Hawaiian community in claiming to incorporate a cultural exhibit and donating money to the Office of Hawaiian Affairs.<sup>21</sup> This is a clear failure to acknowledge the deeper negative cultural impacts the demolition of a part of the summit of a sacred mountain will have on an entire ethnic group of people. The idea that money donations and a cultural exhibit will suppress the objections to the erection of the telescope insinuates that an entire ethnic group can be bought. This demonstrates lack of understanding of native Hawaiian culture because at the core of Hawaiian culture is the idea that “the land is our older sibling, and we must care for it as it will care for us.” There is no amount of money or educational innovation that has the ability to justify the disregard for an entire ethnic group’s culture, or the obliteration of a religious site. Nevertheless, it cannot be ignored that there seems to be an effort on the part of the TMT developers to contribute to the improvement of the welfare of native Hawaiians. Here we see a potential conflict with improving the economic welfare of native Hawaiians and improving the societal, cultural and religious welfare of native Hawaiians. This thus brings up an important issue of whether or not one aspect of welfare ought to take precedence over another. As in the case made by these scholars, bettering the economic welfare of native Hawaiians goes hand in hand with economic development. However, these claims are normative. No construction on Mauna Kea has taken place yet, and it is not entirely guaranteed

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<sup>20</sup> Ibid.

<sup>21</sup> Ibid.

that the TMT developers will actually do the things that they say they will in terms of jobs, rent paid to OHA and 'olelo Hawaii lessons. Therefore, it still unsure whether economic development improves the economic welfare of native Hawaiians.

Opponents to economic development in Hawaii taking precedence over native Hawaiian welfare mostly use historical evidence to support their arguments through the methodology of case study analysis. Professor of Business at Ohio State University, Mansel Blackford,<sup>22</sup> argues that the bombing of Kaho'olawe is an example of economic development taking precedence over native Hawaiian culture and religion, and thus having negative impacts through land degradation. Dr. Blackford argues that the money poured into the new weapons being tested on Kaho'olawe is a form of economic development within the US military. Although Dr. Blackford does not explicitly say that the environmental degradation of Kaho'olawe for economic gain or national security was wrong, his voice and focus on native Hawaiian culture and history in his book *Pathways to the Present: U.S. Development and Its Consequences in the Pacific* insinuates that the westerners' view of Kaho'olawe simply as a means to an end was immoral.<sup>23</sup> Dr. Blackford highlights the cultural significance of Kaho'olawe in terms of its original name *Kahemalamalama O Kanaloa* meaning the sacred refuge of the God Kanaloa, as well as its importance to sea navigations to and from Tahiti.<sup>24</sup> This plays an important role in understanding why Kaho'olawe holds significant cultural and religious importance to *Kanāka Maoli*. Since this was seen as the home to the God of magic and the ocean, Kaho'olawe holds deep religious significance for native Hawaiians who still hold native Hawaiian religious beliefs. During the

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<sup>22</sup> Blackford, *Pathways to the Present*.

<sup>23</sup> Ibid.

<sup>24</sup> Ibid.

bombings of Kaho'olawe, the native Hawaiian community was traumatized.<sup>25</sup> Not only was this seen as immoral from the standpoint of native Hawaiians, but according to Dr. Blackford even the director of the US Reclamation Service said that the bombings on Kaho'olawe done by the US Navy were immoral and not in alignment with the values the United States holds on conservation and land rights.

Waikiki is another, and perhaps the most obvious, case of economic development taking precedence over native Hawaiian welfare. Professor of Art and Architectural History at Clemson University, Andrea Feeser, uses Waikiki as the ultimate example of hyper exploitation of Hawaiian culture for economic gain. In her chapter titled *Helumoa*, Dr. Feeser explains the root cause of the decline in the welfare of native Hawaiians tracing back to the Great Mahele. The Great Mahele on 1848 is the single most important land title event in Hawaiian history. The Great Mahele allowed for the first time private land ownership, a concept which was entirely foreign to native Hawaiians until this event. This event is typically praised by the masses as is perceived to be a progressive event for native Hawaiians as they were not able to own the land they lived and worked on. However, the long term effects of this event did not benefit native Hawaiians. As Dr. Feeser points out, the prized parcel of land known as Waikiki was bought out by wealthy American foreigners who built luxury hotels in order to monopolize the tourism economy. As a result, the revenues from the tourism economy was, and still is to this day, dominated by foreigners. She also attributes capitalism as a main reason why businesses in Waikiki exploit native Hawaiian culture, especially the monarchs. Dr. Feeser also explains that these are the same royals who fought during their reign to lessen Hawaii reliance on foreign

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<sup>25</sup> Lacy Deniz, "The Bombing of Kaho'olawe Went On For Decades. The Clean-Up Will Last Generations," *Hawaii News Now*, February 27, 2018. p. A11

investors, especially America, as they noticed that the largest problem for their people was the economic gap made between the *Kanaka* and the *Haole*. Dr. Feeser also criticizes representing native Hawaiian royals only in Victorian clothing in the hotel displays in Waikiki.<sup>26</sup> Dr. Feeser says that to display them in anything else would be off-putting to tourists.<sup>27</sup> She explains that the last of the royals are the most appealing to tourists because they dressed in Victorian clothing and were the most westernized.<sup>28</sup> This is why many of the hotels and businesses are named after these last royals. Businesses also capitalize on Hawaiian culture to sell goods and experiences, hyper-romanticizing the commonly accepted idea that Hawaiian culture is not much more than lying on the beach, surfing and dancing Hula. This exploitation led to the decline of the general welfare of native Hawaiians as the money made off of this exploitation did not go to the hands of native Hawaiians, rather the money went to western investors in Waikiki. In the chapter *Le'ahi*, Dr. Feeser highlights that this site was once a *Heiau*, or place of extreme religious significance and human sacrifice, as well as a battleground for Queen Liliuokalani's rebel soldiers.<sup>29</sup> Today it is used as a landmark for businessmen to add value to their advertisements as well as a housing community home to the wealthiest people on the island, including the men who helped destroy the *Heiau*. Overall Dr. Feeser's argument is that much of the most sacred sites on O'ahu are the ones exploited for social gain. Dr. Feeser attributes economic gain as the main culprit for the disconnect to the history of these once sacred sites.

Another case study which illustrates the conflict between economic development and native Hawaiian culture and welfare is seen in Hana, Maui. Sociology Professor at Simon Fraser

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<sup>26</sup> Feeser, *Waikiki*.

<sup>27</sup> *Ibid.*

<sup>28</sup> *Ibid.*

<sup>29</sup> *Ibid.*

University in British Columbia, Robert R. Wylie, looked at this topic when analyzing the impacts of tourism taking precedence in industrially untouched communities such as Hana, Maui, which prides itself on being a relatively untouched area, not falling victim to industry and infrastructure. Dr. Wylie found that from previous research, individuals (in various areas) are often hostile towards companies seeking to further tourism development in their communities, unless those individuals are in the tourism business themselves.<sup>30</sup> He hypothesized that the residents of Hana would react in the same way to the introduction of a new tourist company in their community. In this particular study, controversy surrounds a proposed construction plan of a golf course on 201 acres of agricultural land. Opponents of the golf course included many native Hawaiian and non-native Hawaiian interest groups, all basing their objections to the project on the disruption of native land and the negative cultural impacts it would have on the Hana community. Opponents who identified themselves as not having a tourism reliant livelihood also added that they oppose an influx of tourism companies in their community. In his data, Dr. Wylie found that those who supported the construction of the golf course had direct economic ties to the company, either being an employee or the immediate family member of an employee. There were also others in the community who acknowledged that the economy in Hana needed to improve, and that the tourism industry in the area was not making as much revenue as it used to;<sup>31</sup> however these people also strongly felt that the negative environmental and cultural impacts building the golf course would cause would devastate the community and hinder Hana from regaining its untouched aesthetic and its deep ties to spirituality. This article also mentions that a specific law, US Public Law 100-606, would be in violation if the golf

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<sup>30</sup> Wylie, "Hana Revisited," 171-178.

<sup>31</sup> Ibid.

course were to be built. The law says it is “criminal to deliberately manipulate conditions calculated to bring about the physical destruction of a specific group such as a nation, a culture, and/or a religious group.” This critical case study illustrates that public discourse on economic development in Hawaii is not only of concern to native Hawaiian interest groups, but many outside groups have a vested interest in economic development in Hawaii.

The last pair of scholars who support the school of thought that economic development is in constant conflict with, and has negative impacts on, native Hawaiian culture and welfare is former dean of the School of Social Work at University of Hawaii at Manoa Jon Matsuoka and Professor Terry Kelly. These scholars do not use a case study approach to address the argument, rather they use a much broader approach to analyze the societal impacts that tourism development has on the state as a whole. They mention that often the opponents to tourism are residents who fear their culture is threatened by commercialization, while the proponents of increasing tourism are the wealthy descendants of the first missionaries seeking to industrialize the agricultural land they inherited.<sup>32</sup> These scholars argue that economic development has negatively impacted the welfare of the native people in Hawaii, as their food sources have been wiped out due to land degradation. Another aspect of the negative impact to the welfare of native communities is the spike in home prices and the ongoing rise in the cost of living. These authors also critique Hawaii’s economy for being too dependent on tourism. They argue that it isn’t a foundation of a safe and stable economy to be so heavily dependent on one thing, especially tourism.<sup>33</sup> They also argue that the rise in development has correlated with behavioral changes in native Hawaiian populations. Such behavioral changes include loss of traditional practices

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<sup>32</sup> Matsuoka and Kelly, “The Environmental, Economic, and Social Impacts of Resort Development and Tourism on Native Hawaiians,” 29-44.

<sup>33</sup> Ibid.

leaving native Hawaiians in a state of boredom and lethargic mindset.<sup>34</sup> They argue that this boredom has led to obesity and other health issues. This analysis on the societal impacts of economic development on native Hawaiian communities illustrates that economic development comes with consequences that go far beyond just impacting the economy. There is a clear price to pay when it comes to economic development and in almost all areas of the globe, indigenous communities pay that price.

Critiques of this school of thought mainly argue that economics control societies, and to not improve the economy will cause that society to remain primitive. Within each case study, there are some failures to acknowledge the positives that economic development brings. In Dr. Blackford's study, the most obvious argument from the opposing side would be that the bombings were necessary for the testing of US military weapons and training of US military forces. Although this may be true, it does not discount the emotional and psychological impact it caused to an entire generation of native Hawaiians. The bombings were most prevalent in the 1960s through the 1970s. native Hawaiian activist groups formed to protest the bombings on Kaho'olawe, and two men, famous musician George Helm and his cousin Kimo Mitchel paddled out from Maui in an attempt to protest the weapons testing on the island.<sup>35</sup> The men were lost at sea and never heard from again. This incident only strengthened the activists' cause spreading the message that two men had to die fighting for a cause in order for the people to wake up and speak out. This was one of the first prominent and successful acts of protest done by native Hawaiians. We see the same theme of activism today in the Mauna Kea protests. Critiques to the study done by Andrea Feeser are likely to say that her study fails to acknowledge the economic

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<sup>34</sup> Ibid.

<sup>35</sup> Deniz, "The Bombing of Kaho'olawe Went on For Decades" p. A11

boom tourism in Waikiki has had on Hawaii and the positive impacts that came along with it. This critique only holds true if one fails to understand the heart of Dr. Feeser's argument. She is not failing to acknowledge the improvement in the economy brought on by tourism in Waikiki, she is stressing the negative impacts this improvement has had on native Hawaiian culture and welfare. The true beneficiaries to the revenues made in Waikiki are still to this day foreigners, not native Hawaiians. To Dr. Feeser, no argument will hold true that these ends justify these means. In the case study done by Dr. Wylie, critics will argue that this community needed some new construction that would boost their economy, as their heavily tourism dependent economy was on a downward trend. This side of the argument is acknowledged by the residents in Dr. Wylie's study, however, almost every group in the Hana community expressed that they were more concerned with protecting their land as well as their livelihoods as a new tourism attraction would bring competition to local businesses.<sup>36</sup> These groups acknowledged that there was a need to improve their economy, but that they were not willing to do so if it meant it would cause negative impact to their community. The study done by Jon Matsuoka and Terry Kelly falls short of illustrating direct causal impacts of loss of traditional practices onto health issues. It is unclear how the loss of traditional practices that occurred generations ago still have an impact on obesity rates generations later. However, the correlation between economic development and the rising home prices have a clear negative impact on native Hawaiian communities, and that is clearly illustrated through this study.

There is, however, a school of thought that argues for the cooperative relationship between economic development and native Hawaiian culture. This school argues that economic development conflicts with native Hawaiian culture only when an abandonment of native

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<sup>36</sup> Wylie, "Hana Revisited," 171-178.

Hawaiian practices occurs. When native Hawaiian practices are perpetuated in conjunction with economic development, the welfare of the Native Hawaiian community thrives. Proponents of this school are psychologist Dr. Kathryn Hilgencamp and Colleen Pescaia. These authors argue that westernization is the root cause of poor health in native Hawaiians.<sup>37</sup> They found that statistically Hawaiians are at higher risk for cancer, alcohol abuse and heart disease. They found in analyzing data from 2000 that native Hawaiians have one of the lowest life expectancy rates, higher heart disease mortality rates, higher cancer rates, higher obesity rates and smoking rates than the national average.<sup>38</sup> They argue that in the Old Hawaiian *Kapu* (sacred/forbidden) system, people were more physically fit and they were able to have a deeper sense of the land they come from, thus connecting them to nature. The *Kapu* system was a land division system in which each person had a specific role to play in food gathering, whether it be in the mountains, the *lo'i* fields, or in the ocean. They argue that this loss of connection to nature, as well as an aversion to western medicine has degraded the health welfare of native Hawaiians.<sup>39</sup> They say that the solution is not a resistance to modern medicine, but rather an integrating of western medicine with ancient Hawaiian healing as a way to better the overall healthcare of native Hawaiians. This is an example of an argument that illustrates how economic development, specifically in western medicine, has negatively affected native Hawaiians. But also this article is an example of evidence that it is possible and even encouraged for western economic developments to help aid native Hawaiian communities so long as it is intertwined with Hawaiian culture and welfare.

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<sup>37</sup> Hilgencamp and Pescaia, "Traditional Hawaiian Healing and Western Influence," 34-39.

<sup>38</sup> Ibid.

<sup>39</sup> Ibid.

Another supporter to this school of thought is Professor of Political Science at the University of Hawaii at Manoa, Noelani Goodyear-Ka'ōpua who argues that the degradation on Hawaiian lands and ecosystems has gone hand in hand with the decline of education in young native Hawaiians.<sup>40</sup> Dr. Goodyear-Ka'ōpua draws a correlation between the loss of *lo'i* or taro farms in Hawaii due to economic development, with a loss of native Hawaiian knowledge on culture and farming. She explains that farming gave Hawaiians a deeper sense of family as elders taught their younger family members farming and fishing practices, thus giving labor an important role in understanding Hawaiian culture and the emphasis on the extended family. It is important to note that hard manual labor was not seen as degrading or low class as it is in the western sense. She also illustrates how the banning of Hawaiian language in public schools added to the loss of Hawaiian culture. With the loss of language came the sense of humiliation and shame to be Hawaiian.<sup>41</sup> This caused an entire generation of native Hawaiians to abandon their traditional practices such as farming. These cultural losses illustrate the decline in societal welfare of native Hawaiians. Dr. Goodyear-Ka'ōpua attributes the rebirth of acceptance of Hawaiian culture to Hawaiian immersion schools as they have given way for the revival of ancient Hawaiian farming. In the conclusion of her article, Dr. Goodyear-Ka'ōpua predicts that with the rebirth of *lo'i* farming, more Hawaiian people will again have a sense of pride in their identity and have a sense of sovereignty of self, knowing that they are able to provide for themselves and for their communities by cultivating the land in which they and their ancestors lived and died.<sup>42</sup> In her conclusion she also points to a future of a thriving agricultural economy in Hawaii and the need of importing food to gradually decline. This is an example of how

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<sup>40</sup> Goodyear-Ka'ōpua, "Rebuilding the 'Auwai," 46–77.

<sup>41</sup> Ibid.

<sup>42</sup> Ibid.

perpetuating native Hawaiian culture can in fact generate improvements on native Hawaiian welfare as well as Hawaii's economy as a whole. If economic development is achieved without land degradation, the impacts on native Hawaiian communities will be positive.

Although this school of thought raises well-thought-out arguments, these arguments are mainly normative. In the study by Hilgenkamp and Pescaia, the area of the research that concludes that western medicine ought to be used in conjunction with Hawaiian healing really only applies to individuals who still only use Hawaiian healing as their form of health care. This is a small few. The presumption that there is a discourse over whether western medicine is effective or not in Hawaiian communities is not entirely true. Hawaii, like the rest of the country, has open access to western medicine. Land degradation causing poorer health in Hawaiian generations overtime however is an argument that was well thought out. But it seems as though the solution to this wouldn't be western medicine, but rather re-implementing some of the ancient Hawaiian practices of farming as noted in the study by Dr. Goodyear-Ka'ōpua. The study by Dr. Goodyear-Ka'ōpua analyzes in great detail the historical effects that ancient Hawaiian practices had on native Hawaiians, however her study too ends in a normative claim. I am confident that she is right to say that Hawaiians will be better off once they re-institute subsistence farming into society and their daily lives, however this is still a predictive claim. No one can know this to be one hundred percent true.

In total, the literature alludes to the idea that economic development and native Hawaiian culture are like oil and water; they don't mix. While the school of thought that argues that economic development negatively impacts native Hawaiian culture has the strongest argument, as well as historical analysis on their side, I do not believe that this is the school of thought that ought to be pursued further. I do agree that historically economic development has dominated

over native Hawaiian culture and the effects have been detrimental to native Hawaiians and the native Hawaiian culture. However, I do not believe this to always have to be the case. The school of thought spearheaded by Dr. Goodyear-Ka'ōpua is the school of thought that ought to be pursued because she is the only scholar who illustrates how it is possible for native Hawaiians to perpetuate their culture in an economically developing world, and make it work to their benefit.

### **Research Design**

The literature suggests that in well-known cases of economic development conflicting with native Hawaiian culture, economic development has dominated. The literature surrounding economic development conflicting with native Hawaiian culture and welfare primarily focuses on tourism. This is because Hawaii's economy heavily relies on tourism. This implies that in order for the native Hawaiian community to continue to thrive, a stable economy is a condition for prosperity. In an economy like Hawaii's, there needs to be a place for tourism and the revenue it generates. The literature on economic development and native Hawaiian culture proves explicitly or inversely that historically, when economic development was achieved in specific places at specific times, native Hawaiian welfare has been negatively affected. This is proven explicitly by the arguments made by Blackford,<sup>43</sup> Feeser,<sup>44</sup> Wylie,<sup>45</sup> and Matsuoka and Kelly.<sup>46</sup> This is also proven inversely by the argument made by Feder.<sup>47</sup> This argument isn't necessarily supported by the arguments made by Goodyear-Ka'ōpua<sup>48</sup> or Hilgenkamp and

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<sup>43</sup> Blackford, *Pathways to the Present*.

<sup>44</sup> Feeser, *Waikiki*.

<sup>45</sup> Wylie, "Hana Revisited," 171-178.

<sup>46</sup> Matsuoka and Kelly, "The Environmental, Economic, and Social Impacts of Resort Development and Tourism on Native Hawaiians," 29-44.

<sup>47</sup> Feder, "The Future of Astronomy Hinges on the Thirty Meter Telescope," 31.

<sup>48</sup> Goodyear-Ka'ōpua, "Rebuilding the 'Auwai," 46-77.

Pescaia,<sup>49</sup> but it also isn't refuted by them either, due to the normative nature of their arguments. I do not believe that this needs to always be the case. I am sure that there is a way for economic development to be achieved while also perpetuating native Hawaiian culture and improving the livelihoods of native Hawaiians. My hypothesis is that economic development and native culture do not have to conflict. Economic development and native Hawaiian culture, in fact, do not conflict when respect and protection of native Hawaiian culture is of the utmost importance. To test my hypothesis, I will use US census data as well as tourism data from the Hawaii Tourism Authority to analyze native Hawaiian culture and economic development.

In this quantitative study the independent variable is the level of economic development. The dependent variable is the welfare of native Hawaiians. I will measure the response variable by implementing an operationalization of native Hawaiian culture. This operationalization will include the levels of education among native Hawaiians in the area, the language knowledge, the overall health of native Hawaiians, the socio-economic standing of native Hawaiians, as well as resident sentiment towards tourism. I will also include this operationalization analysis to the greater state of Hawaii population, in order to illustrate a source of reference to the reader. I feel this is necessary to include because raw numbers may not hold much value to the reader when it is not in comparison to the larger population. For example, having a poverty rate of 15% may not mean much, but in comparison to a 10% poverty rate in the population surround the group of people having the 15% poverty rate, now it means something; now the reader is drawn to question why a specific group of people have a 50% higher poverty rate than that of their greater surrounding population. Economic development will be operationalized into tourism visitors per year and how much money those tourists spend in Hawaii. The measure of to what degree of

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<sup>49</sup> Hilgenkamp and Pescaia, "Traditional Hawaiian Healing and Western Influence," 34-39.

economic development from tourism has an effect on the welfare of native Hawaiians will be analyzed by year.

In sum, this study seeks to find the relationship between economic development and its effects on native Hawaiian culture. I am seeking to prove my hypothesis, but in the event that my hypothesis is disproven, my research will still hold importance. If it is found that economic development always negatively impacts native Hawaiian culture, this will bring up public policy questions as to whether or not economic development should continue to be pursued in Hawaii.

## **Research and Analysis**

### **Population**

Since the 1900 census, there has been an increase of percentage of native Hawaiians in the state of Hawaii.<sup>50</sup> The outlier here is in 1970, where native Hawaiians are the only racial group that actually had a decline in population in Hawaii. Although since 1980 there has been an increase in the percentage of native Hawaiians in the state, native Hawaiians as a racial group are still in the minority compared to Caucasian, Filipino, and Japanese<sup>51</sup>. According to the 2010 census data, when breaking down the native Hawaiian population in the state of Hawaii by island, 19.1% of the total population on O`ahu identifies as native Hawaiian, 26.67% of the total population on Hawai`i island identifies as native Hawaiian, 21.92% of the total population on Maui identifies as native Hawaiian, 19.49% of the total population on Lana`i identifies as native Hawaiian, 61.63% of the total population on Moloka`i identifies as native Hawaiian, 23.88% of the total population on Kaua`i identifies as native Hawaiian, and 87.65% of the total population

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<sup>50</sup> Robert C. Schmitt, United States. Bureau of the Census. 1970, 1980, 1990 Census of Population, Summary File 1 (SF 1), (June 16, 2011).

<sup>51</sup> *ibid.*

on Ni`ihau identifies as native Hawaiian.<sup>52</sup> In that same year, 21.32% of the overall state population of Hawai`i identifies as native Hawaiian. Although when comparing the number of native Hawaiians living on specific islands to the total number of native Hawaiians in the state, the percentages look a lot different. The total number of native Hawaiians recorded in the 2010 census is 289,970. With the total number of native Hawaiians on O`ahu being 182,120, this makes 62.8% of the total of native Hawaiians to be living on O`ahu. However, this is because O`ahu has by far the highest total island population at 953,207 people, while the next highest island population is Hawai`i island with 185,079 people. So although only 0.1% of the population of native Hawaiians live on Ni`ihau, Ni`ihau is by far the most native Hawaiian dominant in term of ethnicity, given that 149 of the total population of 170 individuals is native Hawaiian, or 87.65%.

### **Income**

The median household income in dollars for native Hawaiians between 2010-2017 has not had a consistent trend in the data from the state of Hawaii as well as the data from the U.S. According to the 2010-2017 American Community Survey done by the US Census Bureau, the median household income in dollars for native Hawaiians was \$59,755 with a margin of error of +/- \$4,655.<sup>53</sup> This took a slight decrease in 2011 with the median being \$59,532 with a margin of error of +/- \$3,749.<sup>54</sup> This median increase in 2012 to \$60,415 with a margin of error of +/- \$2,753.<sup>55</sup> This number increased again to \$65,688 with a margin of error of +/- \$3,877, but

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<sup>52</sup> "Census 2010 Summary File 2," In *US. Bureau of the Census*, (SF 2), February 23, 2012, Available at: <http://www.ohadatabook.com/other.html>

<sup>53</sup> US Census Bureau, 2010-2017 American Community Survey, 1-Year Estimates. S0201: Selected Population Profile in the United States.

<sup>54</sup> Ibid.

<sup>55</sup> Ibid. CAPITALIZE IBID. IN ALL SUBSEQUENT FOOTNOTES.

decreased in 2014 to \$62,852 with a margin of error of +/- \$5,349.<sup>56</sup> The median then increased in 2015 at the highest it has been on the record for native Hawaiians with more than an \$10,000 increase at \$75,381 with a margin of error of +/- \$3,146.<sup>57</sup> This resulted in a decreased median of \$70,445 with a margin of error of +/- \$4,031 in 2016.<sup>58</sup> The median then rose again in 2017 to \$72,363 with a margin of error of +/- \$5,492.<sup>59</sup> Although the trend in income levels for native Hawaiians has not been consistent from 2010-2017, native Hawaiian income levels in the state of Hawaii has consistently been lower than the median household income levels for the overall state population.<sup>60</sup> The year with the smallest difference occurred in 2016, when the median household income for the total population in the state of Hawaii being \$86,768 with a margin of error being +/- \$1,511 and the median household income for a native Hawaiian household living in the state of Hawai`i being \$70,445 with a margin of error of +/- \$4,031; while the highest disparity between the total population median household income and the native Hawaiian median household income occurred in 2017, as the median household income for the total population of the state of Hawaii was \$91,460 with a margin of error of +/- 1,555 and the median household income for a native Hawaiian household in that same year was 72,363 with a margin of error of +/- 5, 492.<sup>61</sup> This means that the median household income for a native Hawaiian household in 2017 was \$19,097 less than their non-Hawaiian counterparts living in the same state.

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<sup>56</sup> Ibid.

<sup>57</sup> Ibid.

<sup>58</sup> Ibid.

<sup>59</sup> Ibid.

<sup>60</sup> Ibid.

<sup>61</sup> Ibid.

## Poverty Levels

In terms of poverty levels, there is no consistent trend in poverty rates in native Hawaiians in the years from 2010 to 2017 for all families or all people. However, native Hawaiian poverty rates are consistently higher than the total population of Hawaii average from the years of 2010 to 2017. This consistency is applicable to all family and individual categories. In 2010, the poverty rate for “all families” was 12.1% with a margin of error of +/- 2.5.<sup>62</sup> This increased to 15.8% with a same margin of error of +/- 2.5.<sup>63</sup> The rate however decreased in 2012 to 13.7% with a margin of error of +/- 2.1.<sup>64</sup> The rate further decreased in in 2013 with a margin of error of +/- 2.3.<sup>65</sup> The rate then increased in 2014 to 12.3% with a margin of error of +/- 2.2.<sup>66</sup> The rate then decreased 10.3% with a margin of error of +/-1.9.<sup>67</sup> The rate further decreased to the lowest rate in the eight-year period recorded to 9.2% with a margin of error of +/- 1.8.<sup>68</sup> The rate then slightly increased again to 9.9% with a margin of error of +/-2.1.<sup>69</sup> Each year recorded, the native Hawaiian poverty rate for “all families” has been higher than the poverty rate of “all families” for the total population of the state of Hawai`i. The largest disparity between the two comparing populations for poverty levels of “all families” occurred in 2011, when native Hawaiian “all families” experienced the highest poverty level of the recorded eight-year period at 15.8% and the poverty level for “all families” of the total population in the state of Hawaii was 8.6%. The smallest disparity between poverty levels for “all families” in the native Hawaiian

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<sup>62</sup> Ibid.

<sup>63</sup> Ibid.

<sup>64</sup> Ibid.

<sup>65</sup> Ibid.

<sup>66</sup> Ibid.

<sup>67</sup> Ibid.

<sup>68</sup> Ibid.

<sup>69</sup> Ibid.

population and the total state of Hawai`i population occurred in 2017 when the native Hawaiian “all families” poverty level was 9.9% and the state of Hawaii total population “all families” poverty level was 7.4%.

In the “all individuals” category the same inconsistency in trends from the “all families categories” is found. This “all individuals” percentage is gathered by averaging the estimates of poverty levels by age, sectoring age by under 18 years, 18 years and over, 18 to 64, and 65 and over. In 2010, the poverty levels for “all individuals” in the native Hawaiian population was 14.7% with a margin of error of +/- 2.1.<sup>70</sup> This increased to 17.2% in 2011 with a margin of error of +/- 2.4.<sup>71</sup> This took a slight decreased in 2012, with a poverty level of 15.6% and a margin of error of +/- 1.9.<sup>72</sup> The poverty level continued on a slight decreased going into 2013 as the level was 14.3 with a same margin of error of +/- 1.9.<sup>73</sup> The level then increased in 2014 to 15.3% with a margin of error of +/- 2.2.<sup>74</sup> The level then decreased in 2015 to 14.5% with a margin of error of +/- 1.9.<sup>75</sup> The level then took a larger decreased in 2016 to 11.4% with a margin of error of +/- 1.6.<sup>76</sup> The level then slightly increased in 2017 to 11.9% with a margin of error of +/- 11.8, however this is still considered a low in comparison to the preceding years.<sup>77</sup> Not only when counting individuals’ poverty levels is it consistently higher than that of families, but like the poverty level of families, all individuals’ poverty levels for the native Hawaiian population is consistently higher than the total state of Hawaii population for each year. The largest gap was

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<sup>70</sup> Ibid.

<sup>71</sup> Ibid.

<sup>72</sup> Ibid.

<sup>73</sup> Ibid.

<sup>74</sup> Ibid.

<sup>75</sup> Ibid.

<sup>76</sup> Ibid.

<sup>77</sup> Ibid.

seen in 2011 with a difference of 5.2%. This is also the year of the highest poverty level for all individuals in the native Hawaiian population. The smallest gap occurred in 2016, with a difference of 2.1%. This is also the year that the poverty level for all individuals in the native Hawaiian population was at its lowest. Like the data from the “all families” category, it is clear that native Hawaiians suffer higher poverty levels than their counterparts living in the same state.

### **Education**

In terms of education, the percentage of the native Hawaiian population enrolled in school up until the 12<sup>th</sup> grade is consistently higher than the state total population averages from the years of 2010 to 2017.<sup>78</sup> Because the US census data available only had raw population data as recent as 2010, only that year can be analyzed in terms of education comparison to population sizes. Given that the average age of a college person graduating undergraduate school is 22, the age total for population was ages 1-24, at 434,130 individuals. When calculating the percentage of individuals eligible to be in school that are actually enrolled, I divided the raw number of individuals in the total state population enrolled in school in 2010, 339,578 and divided that number by the individuals in the total state population from ages 1-24, 443,130 and ended up with 0.7822. This means that in 2010 78.22% of people in the state of Hawaii that were at the eligible age to be enrolled in school were actually enrolled.<sup>79</sup> The same method was calculated for the native Hawaiian population. In 2010 there were 136,040 native Hawaiians between the ages of 1-24. In 2010 93,430 native Hawaiians were enrolled in school. When calculating the percentages of eligible ages students enrolled in school, I divided 136,040 by 93,430 and got 0.6867. This means that 68.68% of native Hawaiians who were the age to be enrolled in school

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<sup>78</sup> US Census Bureau, 2014 American Community Survey 1-Year Estimates, S0201: Selected Population Profile in the United States.

<sup>79</sup> Ibid.

were actually enrolled in school.<sup>80</sup> This includes general as well as when broken down by gender. This means that in 2010, there was a 9.55% difference in school enrollment between the native Hawaiian population and the larger total state of Hawaii population.

When broken down by grade, the trends vary in 2010. The average age for nursery school/preschool is ages three and four years old. When adding these two age groups together, in 2010 there were 34,188 children ages three and four in the state of Hawaii. In 2010 the population 3 years and over enrolled in school was 339,578.<sup>81</sup> Of that total, 5.7% was enrolled in nursery school, making that 19,356 children in nursery school/preschool. This means that of the children at the eligible age for nursery school and preschool, 56.62% were actually enrolled in nursery school/ preschool. It is important to note here that Hawaii does not have public preschools, meaning not only would a parent have to pay to send their child to preschool or nursery school, but that school has the right to allow admission into their school. In 2010 there were 12,146 children ages three and four in the native Hawaiian population.<sup>82</sup> In that year 8.3% of the 93,430 native Hawaiian population three years and over enrolled in school were enrolled in nursery school or preschool; making that 7,747 individuals. Of the three and four years old native Hawaiian population, 7,747 children were enrolled in preschool or nursery school, making that 63.78%.<sup>83</sup> This means that there is 7.16% difference in preschool/nursery school attendance, with the native Hawaiian population having a higher attendance rate than that of the greater state population.

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<sup>80</sup> Ibid.

<sup>81</sup> Ibid.

<sup>82</sup> Ibid.

<sup>83</sup> Ibid.

For grades kindergarten to eighth grade, ages five to fourteen were analyzed. In 2010 there were 164,900 individuals ages five to fourteen. In that year, 43.5% of the individuals enrolled in school were enrolled in kindergarten through eighth grade; being 147,716 individuals.<sup>84</sup> Of the individuals of the typical ages of kindergarteners to eighth graders, 89.58% were enrolled in school. In 2010 there were 55,630 individuals in the native Hawaiian population. In the same year 50.2% of the total number of native Hawaiian individuals in school were enrolled in kindergarten through eighth grade; making it 46,902 individuals.<sup>85</sup> This means that of the native Hawaiian population ages five through fourteen, 84.31% were enrolled in school. In 2010, there was a difference of 5.27% with the total state population having a higher enrollment of children in school for grades kindergarten through eighth grade.

High school enrollment had the smallest discrepancy between native Hawaiians and the Hawaii state population. The age range analyzed for high school was ages fourteen to eighteen. The total individuals in the state ages fourteen to eighteen in 2010 was 85,002. In the same year, 20.4% of the 339,578 people enrolled in school were in high school, making that 69,274 individuals. The number of individuals of eligible high school age actually enrolled in high school was 81.5% in 2010. In the native Hawaiian population, there were 27,603 children between the ages of fourteen and eighteen. In that year 23.3% of the 93,430 native Hawaiians students were in high school, being 21,769 individuals.<sup>86</sup> This means that in 2010 78.9% of the native Hawaiian population of eligible high school age were actually enrolled in high school. The difference between the larger state population and the native Hawaiian population in regards to high school enrollment is the smallest of the education categories analyzed at 2.6%. Although

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<sup>84</sup> Ibid.

<sup>85</sup> Ibid.

<sup>86</sup> Ibid.

this is the category with the smallest difference, it is still concerning that the graduation rate for Hawaii in 2010 was a mere 81.5%, and the native Hawaiian population was even lower at 78.9%.

## **Health**

In terms of obesity, native Hawaiians have consecutively had higher obesity rates than that of the larger state population in the years of 2011-2017. In 2011 the percentage of people in the state population who were obese was 21.9%, 23.6% in 2012, 21.8% in 2013, 22.1% in 2014, 22.7% in 2015, 23.8% in 2016 and 23.8% in 2017.<sup>87</sup> The native Hawaiian population obesity rate comes close to double that of the larger state population, with a 40.8% rate in 2011, 44.7% in 2012, 39.0% in 2013, 38.7% in 2014, 42.4% in 2015, 45.6% in 2016 and 42.7% in 2017.<sup>88</sup> Like income levels and poverty levels, obesity rates in native Hawaiians as well as the greater state population do not have steady trends within themselves; i.e. the rate increases or decreases over time. However, the native Hawaiian population consistently has a higher obesity rate than that of the greater state population.

In terms of alcoholism, this is measured using two categories; heavy drinking and binge drinking. Heavy drinking was measured in a survey format by asking participants, “on the days when you drank during the past 30 days, about how many drinks did you drink on average?” A heavy drinker is a man who drinks more than two drinks per day or a woman who drinks more than one drink per day.<sup>89</sup> One drink was classified as a twelve-ounce beer, a four-ounce wine, or any drink containing one shot of liquor.<sup>90</sup> With the exception of the years of 2014 going into 2015, there has been a somewhat steady increase in the crude rate number of individuals as well

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<sup>87</sup> Hawai'i State Department of Health, Hawaii Health Data Warehouse, Behavioral Risk Factor Surveillance System.

<sup>88</sup> Ibid.

<sup>89</sup> Ibid.

<sup>90</sup> Ibid.

as the percentage of individuals in the state of Hawaii population; the same cannot be said for the native Hawaiian population. Between the years of 2011 to 2017, the State of Hawaii had a heavy drinking crude rate of 73,400 or 7.4%, then 77,700 or 7.4%, then 80,300 or 7.6%, then 81,500 or 7.9%, then 80,800 or 7.7%, then 84,300 or 7.9%, then 89,800 or 8.6%, respectively, from 2011 to 2017.<sup>91</sup> In the native Hawaiian population, the same years of 2011-2017 consisted of 12,000 individuals or 11.5%, then 14,500 or 11.6%, then 9,800 or 9.0%, then 12,700 or 10.0%, then 16,200 or 12.2%, then 15,400 or 12.0%, then 14,800 or 11.0%, respectively from 2011 to 2017.<sup>92</sup> Although there is not as much of a trend in the crude rates of the native Hawaiian population, every year the native Hawaiian population has a higher percentage of heavy drinking in comparison to the state of Hawaii population.

Although obesity and alcohol are more so self-driven than other types of health problems, because heart disease was analyzed in the literature, it is important to include it as well in this study. In the years between 2011 and 2017, the state of Hawaii population's crude rate percentage of individuals with coronary heart disease and the native Hawaiian population's crude rate percentage of individuals with coronary heart disease never had a difference of more than 1.8%, with the next highest difference in the same year being 0.8%. However, unlike the other health categories analyzed, these differences consist of highs and lows in both the native Hawaiian population and in the state of Hawaii population; neither population was consistently higher or lower in percentages of coronary heart disease. In the years of 2011 to 2017, the state of Hawaii's population had a crude rate number of 30,900 individuals or 2.5% in 2011, 30,000 individuals or 2.8% in 2012, 29,100 or 2.7% in 2013, 37,800 or 3.4% in 2014, 31,000 or 2.8% in

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<sup>91</sup> Ibid.

<sup>92</sup> Ibid.

2015, 40,300 or 3.6% in 2016, and 28,100 or 2.5% in 2017.<sup>93</sup> There was no apparent general trend in rates of heart disease amongst the state of Hawaii population from the years of 2011 to 2017. For the native Hawaiian population, the crude rate raw numbers and percentages experienced just as much fluctuations as did the state of Hawaii population. In 2011 the native Hawaiian population had 3,000 individuals with coronary heart disease, or 2.7%, 5,800 or 4.8% in 2012, 3,700 or 3.2% in 2013, 5,500 or 4.2% in 2014, 4,500 or 3.3% in 2015, 4,800 or 3.5% in 2016, and 2,900 or 2.0% in 2017.<sup>94</sup>

### **Economic Development**

To study the impacts of economic development I used the annual research conducted by the Hawaii Tourism Authority (HTA). The report conducted surveys residents, called the resident sentiment report, in which HTA analyzes the impact that tourism has on Hawaii residents. The report does not specify whether the individuals surveyed are of native Hawaiian ethnicity or not. The HTA uses a survey sample method distributed amongst the four Hawaii counties, Honolulu, Hawaii, Maui and Kauai. The breakdown of the sample is 600 individuals from the Honolulu county, 450 from Hawaii, 400 from Maui and 200 from Kauai; bringing the total to 1,650. The way the survey was conducted was by Computer Assisted Telephone Interview (CATI).

In 2012, 7,867,163 people visited Hawaii throughout the entire year.<sup>95</sup> 8,196,342 individuals visited in 2014. 8,563,018 individuals visited in 2015 and 9,277,613 visited in 2017.<sup>96</sup> In 2012 total visitor expenditures were reported at 14.37 billion, 14.97 billion in 2014,

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<sup>93</sup> Ibid.

<sup>94</sup> Ibid.

<sup>95</sup> Hawaii Tourism Authority Resident Sentiment Survey, 2017.

<sup>96</sup> Ibid.

15.11 billion in 2015 and 16.81 billion in 2017.<sup>97</sup> In each of these years and the changes between each years, as visitor totals went up so did total visitor expenditures; which is as expected.

The 2012 report studied the sentiment of the previous 12 months. For the purposes of this paper, I focused on questions having to do with native Hawaiian well-being, representation and culture. When asked “How much do you agree that Tourism currently presents native Hawaiian culture in an authentic manner?” the 2012 report stated that 35% agreed that tourism currently represents native Hawaiian culture in an authentic manner, 11% completely agreed, and 54% disagreed.<sup>98</sup> The 2014 report stated that 36% agreed, 12% completely agreed and 49% disagreed.<sup>99</sup> The 2015 report stated that 32% agreed, 12% completely agreed, and 53% disagreed.<sup>100</sup> The 2017 report stated that 29% agreed, 9% completely agreed and 59% disagreed. Years 2014, 2015 and 2017 stated 3% “didn’t know”.<sup>101</sup> Between the four reports there was not a steady trend in the rates of agree and disagree, due to the decrease between the 2012 and 2014 reports. In 2014 a new question was added to the survey. Participants were asked to respond to the statement “tourism helps preserve native Hawaiian culture and language” on a scale of 1-10 with 10 being completely agree and 1 being completely disagree. In 2014 the HTA report stated that 36% agreed, 14% completely agreed and 48% disagreed.<sup>102</sup> In 2015 33% agreed, 12% completely agreed, 52% disagreed and 3% did not know.<sup>103</sup> In 2017 33% agreed, 12% completely agreed, 53% disagreed and 2% didn’t know. Through these three reported years there was a gradual increase in the percentage of people who disagreed with the statement that tourism

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<sup>97</sup> Ibid.

<sup>98</sup> Ibid.

<sup>99</sup> Ibid.

<sup>100</sup> Ibid.

<sup>101</sup> Ibid.

<sup>102</sup> Ibid.

<sup>103</sup> Ibid.

helps preserve native Hawaiian culture and language. In analyzing the data from HTA, it is clear that as individuals visited increased, so did the total visitor expenditures, so did the disagreement with the statements “tourism helps preserve native Hawaiian culture and language” and “tourism helps preserve native Hawaiian culture and language.”

### **Economic Development and Native Hawaiian Welfare**

Unfortunately, the only years I can truly cross analyze are 2012, 2014, 2015 and 2017. This completely eliminates education. Education was included in the study because it was focused on in the literature review by other the authors. At least one piece of literature from each school of thought on the subject addressed education to some extent. The first school of thought acknowledged that education was a necessary component to the welfare on native Hawaiians by incorporation ‘*Olelo Hawaii* lessons as the proposed TMT on Mauna kea, the second and third schools of thought attributed a decline in education in native Hawaiian students to adopting a lethargic attitude due to a loss of knowledge in cultural farming and connection to land. Within the education sector itself, there is evidence to support the claim that native Hawaiian students exhibit a lower rate of school attendance in grades kindergarten through 12<sup>th</sup> grade than their counter parts in the larger state population. Due to the lack of population data for the later years, education could not be analyzed with the other sectors of analysis for this study.

To illustrate the possible relationship between economic development and native Hawaiian welfare, the categories of analysis will be compared by the year. In 2012 native Hawaiian income level was \$60,415 with a margin of error of +/- \$2,753. The state of Hawaii population had a median household income of \$66,259 with a margin of error of +/- 1,628. In that same year the native Hawaiian population had an “all families” poverty rate for of 13.7%, while the state of Hawaii population had an “all families” poverty rate of 8.6%. In the “all

individuals” category, the native Hawaiian population had a rate of 15.6%, while the state of Hawaii population had a rate of 11.6%. In terms of obesity, the native Hawaiian population had an obesity rate of 44.7%, while the state of Hawaii population had a rate of 23.6%. In terms of alcoholism, the native Hawaiian population had a rate of 11.6%, and the state of Hawaii population had a rate of 7.4%. In terms of coronary heart disease, the native Hawaiian population had a rate of 5.0%, while the state of Hawaii population had a rate of 2.5%. In regards to economic development, in 2012 7,867,163 people visited Hawaii and spent 14.37 billion dollars. In regards to resident sentiment towards these high rate of tourism, when asked “How much do you agree that Tourism currently presents native Hawaiian culture in an authentic manner?” the 2012 report stated that 35% agreed that tourism currently represents native Hawaiian culture in an authentic manner, 11% completely agreed, and 54% disagreed. It is clear here that in every category analyzed, the native Hawaiian population had inferior rates than their state of Hawaii population counterparts, while also experiencing high tourism and voicing the animosity towards that tourism in terms of the effect on their culture.

In 2014 native Hawaiian income level was \$62,825 with a margin of error of +/- \$5,349. The state of Hawaii population had a median household income of \$69,592 with a margin of error of +/- \$1,456. In that same year the native Hawaiian population had an “all families” poverty rate for of 12.3%, while the state of Hawaii population had an “all families” poverty rate of 7.8%. In the “all individuals” category, the native Hawaiian population had a rate of 15.3%, while the state of Hawaii population had a rate of 11.4%. In terms of obesity, the native Hawaiian population had an obesity rate of 38.7%, while the state of Hawaii population had a rate of 22.1%. In terms of alcoholism, the native Hawaiian population had a rate of 10.0%, and the state of Hawaii population had a rate of 7.9%. In terms of coronary heart disease, the native

Hawaiian population had a rate of 4.2%, while the state of Hawaii population had a rate of 3.0%. In regards to economic development, in 2014 8,196,342 people visited Hawaii and spent 14.97 billion dollars. In regards to resident sentiment towards these high rate of tourism, when asked “How much do you agree that Tourism currently presents native Hawaiian culture in an authentic manner?” the 2014 report stated that 36% agreed that tourism currently represents native Hawaiian culture in an authentic manner, 12% completely agreed, and 49% disagreed. When asked to respond to the statement “tourism helps preserve native Hawaiian culture and language” the HTA report stated that 36% agreed, 14% completely agreed and 48% disagreed. It is clear here that in every category analyzed, the native Hawaiian population had inferior rates than their state of Hawaii population counterparts, while also experiencing high tourism and voicing the animosity towards that tourism in terms of the effect on their culture.

In 2015 native Hawaiian income level was \$75,381 with a margin of error of +/- \$3,146. The state of Hawaii population had a median household income of \$73,486 with a margin of error of +/- \$2,012. In that same year the native Hawaiian population had an “all families” poverty rate for of 10.3%, while the state of Hawaii population had an “all families” poverty rate of 6.9%. In the “all individuals” category, the native Hawaiian population had a rate of 14.5%, while the state of Hawaii population had a rate of 10.6%. In terms of obesity, the native Hawaiian population had an obesity rate of 32.4%, while the state of Hawaii population had a rate of 22.7%. In terms of alcoholism, the native Hawaiian population had a rate of 12.2%, and the state of Hawaii population had a rate of 7.7%. In terms of coronary heart disease, the native Hawaiian population had a rate of 3.3%, while the state of Hawaii population had a rate of 2.8%. In regards to economic development, in 2015 9,277,613 people visited Hawaii and spent 15.11 billion dollars. In regards to resident sentiment towards these high rate of tourism, when asked

“How much do you agree that Tourism currently presents native Hawaiian culture in an authentic manner?” the 2015 report stated that 32% agreed that tourism currently represents native Hawaiian culture in an authentic manner, 12% completely agreed, and 53% disagreed. When asked to respond to the statement “tourism helps preserve native Hawaiian culture and language” the HTA report stated that 33% agreed, 12% completely agreed and 52% disagreed. In this year, the income levels of native Hawaiian for median household income has actually higher than that of the state of Hawaii population. In all other sectors, the native Hawaiian population had inferior rates than their state of Hawaii population counterparts, while also experiencing high tourism and voicing the animosity towards that tourism in terms of the effect on their culture.

In 2017 native Hawaiian income level was \$72,363 with a margin of error of +/- \$5,492. The state of Hawaii population had a median household income of \$77,765 with a margin of error of +/- \$1,795. In that same year the native Hawaiian population had an “all families” poverty rate for of 9.9%, while the state of Hawaii population had an “all families” poverty rate of 7.4%. In the “all individuals” category, the native Hawaiian population had a rate of 11.9%, while the state of Hawaii population had a rate of 9.5%. In terms of obesity, the native Hawaiian population had an obesity rate of 42.7%, while the state of Hawaii population had a rate of 23.8%. In terms of alcoholism, the native Hawaiian population had a rate of 11.0%, and the state of Hawaii population had a rate of 8.6%. In terms of coronary heart disease, the native Hawaiian population had a rate of 2.0%, while the state of Hawaii population had a rate of 2.5%. In regards to economic development, in 2017 9,277,613 people visited Hawaii and spent 16.81 billion dollars. In regards to resident sentiment towards these high rate of tourism, when asked “How much do you agree that Tourism currently presents native Hawaiian culture in an authentic manner?” the 2017 report stated that 29% agreed that tourism currently represents native

Hawaiian culture in an authentic manner, 9% completely agreed, and 59% disagreed. When asked to respond to the statement “tourism helps preserve native Hawaiian culture and language” the HTA report stated that 33% agreed, 12% completely agreed and 53% disagreed. Once again it is clear here that in every category analyzed, the native Hawaiian population had inferior rates than their state of Hawaii population counterparts, while also experiencing high tourism and voicing the animosity towards that tourism in terms of the effect on their culture.

## **Conclusion**

The data suggests that there may be an inverse relationship between economic development and the welfare of native Hawaiians in the state of Hawaii. However, there is not enough evidence to support that this relationship is always inverse. For the relationship between tourism-driven economic development and the welfare of native Hawaiians to be a truly inverse relationship, that would mean that when either increases, the other must decrease. As the data shows, as tourism-driven economic development increased, the welfare of native Hawaiians decreased. This “decrease” is supported by the general trends within the native Hawaiian population itself, as over time that economic development increased, native Hawaiian welfare decreased, but also because native Hawaiian welfare was consistently inferior to that of the welfare of the greater state population. The largest shortcoming in this research however is that there is not quantitative data that measures knowledge of ancient Hawaiian cultural practices. As mentioned in the literature, there have been significant losses in terms of knowledge of ‘Olelo Hawaii, and a sense of being connected to the land. The ahupua’a land division sustainable agriculture system is no longer in use. Many ancient Heiau have been destroyed. Taro farming is sparse and generationally the disconnect only grows worse and worse. Unfortunately there is not

a quantitative mechanism currently in place that measures these fluctuations in cultural practices in Hawaii. So although many people have lived through these changes and losses, there is not available quantitative data that allows for the cross analysis of loss of culture and economic development, therefore the relationship cannot be quantitatively proven.

The data mostly supports the argument made by Beckford, Feeser, Matsuoka & Kelly and Wylie. These authors argue that economic development had historically negatively impacted native Hawaiians; and this is proven by the data. The economic welfare and health welfare of native Hawaiians is always worse off than their larger state population counter parts. Although income did not always decrease for native Hawaiians over time, they did not experience the amount of income increase that the state population experienced. Dr. Feeser's argument was supported as the economic welfare of native Hawaiians was proven to be worse off than their state population counter parts. Dr. Wylie's study was supported as the resident sentiment towards tourism proved to be grounded in fact as tourism has negative effects on the welfare of native Hawaiians. The argument made by Matsuoka and Kelly is also supported as there seems to be a relationship between the health welfare of native Hawaiians and economic development, perhaps through the abandonment of native Hawaiian culture as said in their study, however not found to be proven by my research as a quantitative mechanism to study a loss of culture is absent.

Assuming the welfare of native Hawaiians holds value to people, then the data also disproves Feder and the IMUA TMT interest group. This school of thought argues that the furthering of economic development is in the best interest of all people in Hawaii, and that building the Thirty Meter telescope will reap benefits to the people of the greater state of Hawaii population as well as the native Hawaiian population. Although the Thirty Meter telescope is not solely a tourist attraction, it will be built to have a tourism component to it (a gift shop). Due to

this component, it is assumed that the planners of this project are taking into account that this telescope will attract tourists who will spend money to see the largest telescope in the northern hemisphere. Although this group did seem to take into account the economic welfare of native Hawaiians in their building proposals, it may be the case that in the long term the TMT on Maun Kea will have the opposite effect on native Hawaiians as the real beneficiaries will be foreign investors and perhaps even the larger state population as a whole, but the group the proposal aimed to help, native Hawaiians, will not benefit from the construction of this telescope.

The data neither supports nor rejects the last school of thought argued by Kapua-Goodyear and Colleen & Pescaia. These authors argue that economic development conflicts with native Hawaiian culture only when an abandonment of native Hawaiian practices occur, but it is possible for economic development and native Hawaiian welfare to be achieved harmoniously when native Hawaiian culture conservation and protection is held at a level of importance. To prove this argument, tourism and the amount of money tourists spend per year would have had to have a steady increase (as it does now), but resident sentiment would have had to have an “agree” increased when being asked to respond to the statements “tourism helps preserve native Hawaiian culture and language” and when asked “How much do you agree that Tourism currently presents native Hawaiian culture in an authentic manner?”. Additionally, native Hawaiian welfare would have had to increase over time. My hypothesis was in line with this school of thought, as my hypothesis was “economic development and native culture do not have to conflict. Economic development and native Hawaiian culture, in fact, do not conflict when respect and protection of native Hawaiian culture is of the utmost importance.” The data does not support my hypothesis. However, it does not completely refute it either. To refute this

hypothesis, it would have to be proven that respect and protection of native Hawaiian culture was at a level of importance, and native Hawaiian welfare declined. This is not proven because there has yet to be data that alone even proves that tourism-driven economic development is exhibiting that respect and protection of native Hawaiian culture is held at a level of importance.

To further this research, it would be interesting to see the data from the 2020 census and see how the data has changed in the last 10 years in terms of population and education. Most importantly, this research proves that the ongoing struggle that native Hawaiians face to protect their homeland is not based purely on victimization or a dramatized narrative of ancient people perpetuating the sad story that has happened to people of color around the world. As the data has proven, native Hawaiians to this day see the disproportionate well-being decline of their people while their culture is exploited to make a profit. I hope that this research can be applied to the situation on Mauna Kea with the Thirty Meter telescope and that lawmakers can begin to give weight to the plight of the native Hawaiian people when they decide to sell their sacred land.

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