

**TROUBLED WATERS:  
CHARTING A NEW FISCAL  
COURSE FOR HAWAII**

A report to the members of the Hawaii Executive Conference  
on the fiscal outlook for Hawaii over the next thirty years



OCTOBER 2, 2019

**TO THE MEMBERS OF THE HAWAII EXECUTIVE CONFERENCE:**

Your Committee on Government & Civic Engagement was tasked with examining the status of state and local government in Hawaii and proposing recommendations for change into the future.

As we undertook this assignment, it became apparent that there was no shortage of ideas and recommendations for improvement from everyone who was asked to comment. However, one thing became abundantly clear; enacting the changes proposed would require significant resources.

That prompted your Committee to first focus on the future fiscal capacity of state and local government. In that regard we studied the known future liabilities of state and local governments. They are costs that government will be required to address during the 30 year period ahead. Our research focused on the fiscal expenses that were the largest and most essential. They fell into three categories: (1) the need to mitigate the impact of climate change, sea level rise, and natural disasters; (2) costs associated with infrastructure development and maintenance; and (3) the unfunded liabilities that must be met to honor public employee pension and post-employment health care benefits. Our findings led to the conclusion that the extent of future costs that state and local governments are required to meet will strain their capacity beyond any prior experience.

We do not offer solutions in our report. Rather, we realized that a major effort must be undertaken to formulate fixes. That next phase must involve civic engagement by diverse stakeholders in a process that will require strategic vision, collaboration and innovation. The expert and sage advice of many community leaders will be required to develop strategies. It will be also be an important opportunity to engage a younger generation of leadership who will inherit these burdens. They must weigh in and identify the future they want to live and the path they will be willing to travel to achieve it.

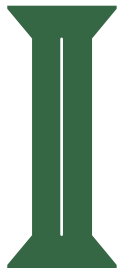
As members of the Hawaii Executive Conference, it is incumbent upon us to support this effort going forward with resources and talent. We can then again demonstrate Hawaii's ability to work together as a community for the benefit of future generations.

Respectfully submitted on behalf of the members of the Committee on Government and Civic Engagement,

**Colbert Matsumoto**  
Chair

In the next thirty years, Hawaii must build and maintain infrastructure, prepare for natural disasters and sea level rise, and meet public employee pension and retiree healthcare obligations. Facing these three challenges will cost over \$88 billion. Overcoming these fiscal challenges with limited financial resources will require strategic vision, collaboration, and innovation.





**In the sixty years since statehood in 1959, Hawaii has undergone a profound transformation. The first thirty years were marked by tremendous economic growth that fueled infrastructure construction and new private developments.**

Hawaii made major advances in social and economic equality. The State undertook significant public infrastructure projects: constructing the H-1, H-2, and H-3 freeways; tunneling through the Koolau mountain range to create the Pali, Wilson, and Hara-no Tunnels; building the reef runway on Oahu; redeveloping airports on the Big Island, Maui, and Kauai to accommodate transpacific air travel; and developing a new deep draft harbor at Barbers Point to supplement shipping capacity at Honolulu Harbor.

Public education facilities were improved in every community to accommodate the growing numbers of “Baby Boom” children. To provide higher education, the State established the University of Hawaii system that incorporated the university campuses in Manoa and Hilo; upgraded technical schools into community colleges on every major island; and founded a medical school and a law school within the 15 years following statehood.

With tourism rapidly rising as an economic engine, private developers added thousands of new hotel rooms to Waikiki and developed new resorts like Kaanapali, Wailea, Kapalua, Keauhou-Kona, Waikoloa, the Gold Coast, Princeville, Turtle Bay, and Ko Olina. With agriculture’s role diminished, private developers built thousands of homes in new residential communities on former agricultural land to accommodate a growing middle class and families looking to live the “American Dream.” The more recent development of the city of Kapolei and the Kaka’ako Redevelopment District were first conceived and initiated during this period.

While the economic prosperity of that period was primarily attributed to the rise of tourism, government spending was also important. The federal government infused hundreds of millions of dollars for developing defense facilities throughout the State. Robust tax revenues fueled the growth of State and local governments as they sought to serve an expanding constituent base.

At times during the first thirty years of statehood, the growth of the economy in Hawaii outpaced the economy of the United States. The strength of the economy gave lawmakers the confidence to enact a bold and progressive pre-paid health care plan, the first in the nation - 35 years before the Affordable Care Act (“Obamacare”) was enacted by Congress.



**During the next thirty years till today, concerns about population growth and over-development prompted the enactment of laws to control the pace of development.**

The burden of State and local government began to outpace public revenues while increases in existing taxes with new tax measures were enacted. Hawaii's economy slowed from the pace it had previously enjoyed.

A series of economic downturns resulted from the bursting of the Japanese Real Estate Bubble, the slowdown in tourism activity due to the Persian Gulf Wars, the Dot-com crash, 9-11, and the Great Recession. As State and local governments were confronted with a tighter fiscal situation, they struggled to balance budgets. Government employees were laid off in large numbers in the mid-1990's and children attending public schools had their instructional days reduced through the notorious "Furlough Fridays" as a cost-savings measure in 2010.

Large scale public infrastructure investments were largely curtailed, except for Honolulu's troubled rail project. Fewer major private developments were initiated. Newly proposed developments such as Ho'opili and Koa Ridge found themselves burdened with lengthy regulatory review processes and judicial challenges.

During this thirty-year period, multiple attempts to stimulate the economy with various economic initiatives fell short and budgetary shortfalls continued to recur. Balancing budgets became an exercise in raiding special funds<sup>1</sup>, raising taxes<sup>2</sup>, and enacting new taxes.<sup>3</sup>

<sup>1</sup> Several Special Fund accounts along with the Hawaii Hurricane Relief Fund ("HHRF") became convenient sources of supplemental funding for the State's General Fund.

<sup>2</sup> The Transient Accommodation Tax ("TAT") began at 5% primarily to support the counties and today stands at 10.25% with most of the revenue diverted to the General Fund. State personal income tax rates were raised for middle and high income earners by as much as 34%. The Conveyance Tax on real estate transactions was also increased from \$0.05 to \$1.25 per \$100 of price to supplement the General Fund.

<sup>3</sup> A Barrel Tax on imported petroleum products was enacted at \$0.05 in 1993 and subsequently increased to \$1.05 per barrel to supplement the General Fund. All the counties were granted the right to impose up to a 0.5% GET surcharge from 2019 in addition to their increasing real property tax rates.



Efforts to revitalize the agriculture industry consistently faltered. The goal of diversifying Hawaii's economic base remained elusive as heavy dependence on tourism continued and morphed into new forms.

### **We begin the next thirty-year period confronted with a new set of challenges.**

Today, the cost of operating government is getting more expensive while Hawaii's economy has not kept pace with the rest of the nation. Between 2012 and 2018, the cost of State government increased 41%<sup>4</sup> despite the number of employees remaining relatively flat.<sup>5</sup> During this same period, Hawaii's economy grew 9.8% or 1.6% annually compared to the national rate of 2.4%.<sup>6</sup> DBEDT forecasts GDP growth of 1.1% in 2019 and 1.2% in 2020.<sup>7</sup> Faced with these economic conditions, State and county governments cannot continue to operate in such a manner. Government will simply be too expensive to conduct business as usual.

With this report we attempt to project the fiscal challenges that the State and counties will face during the next thirty years. We focused on three major fiscal challenges and quantified their financial impact. The three major fiscal expenditures are:

- (1) the major capital investment required for basic public infrastructure critical for economic viability;
- (2) the costs of preparing for the impact of climate change and the threats of sea level rise and natural disasters; and
- (3) the increasing share of the budget that must be reserved to provide public employee pension and retiree healthcare benefits.

Our estimate, based upon official reports and several agency studies, does not provide a complete picture as some agencies have not yet determined their future needs. But even with that caveat, the aggregate amount is substantial.

**The total future fiscal State and county expenses and investments are more than \$88 billion over the next thirty years. The number exceeds Hawaii's gross domestic product ("GDP") in 2018.<sup>8</sup>**

This report was prepared by a team that included economists, scholars, fiscal experts, and business executives. In addition, the authors have interviewed dozens of experts and consulted numerous government and other relevant reports and studies.

We start by defining the three fiscal challenges, and then proceed to discuss how strategic vision, collaboration, and innovation can help to overcome them.

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<sup>4</sup> State of Hawaii CAFR 2018, p.154-155 Financial Trends Information.

<sup>5</sup> State of Hawaii CAFR 2018, p.173 Demographic and Economic Information, State Employees by Function. Demographic and Economic Information, State Employees by Function.

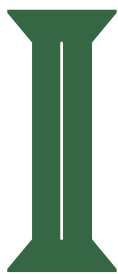
<sup>6</sup> State of Hawaii Data Book 2018, Table 13.03 GDP, Hawaii and the United States.

<sup>7</sup> Department of Business, Economic Development, and Tourism (DBEDT), "Outlook for the Economy", 3rd Quarter 2019 Report.

<sup>8</sup> State of Hawaii Data Book 2018 reports inflation adjusted GDP of \$80.1 billion for 2018.

## THE THREE FISCAL CHALLENGES

### IMPROVING INFRASTRUCTURE: \$47.2 BILLION



Infrastructure is the fundamental facilities and systems serving a community. It is the backbone of the economy and essential to its proper functioning. A 2014 study by the Hawaii Institute for Public Affairs estimated that infrastructure investments of \$15.5 billion in the next twenty years will create more than 212,000 jobs and contribute almost \$33 billion to the local economy.<sup>9</sup> Investments in West Oahu have created a second city in Kapolei for the benefit of residents and businesses.

Inadequate infrastructure curtails opportunities for economic development and undermines a community's economic competitiveness. Moreover, it can have collateral consequences that impair the quality of life in the community.

Yet, Hawaii's infrastructure is ailing. Poorly maintained facilities have accelerated their deterioration and increased the cost of repair or otherwise triggered the need for replacement. Potholes, electrical outages, and water main breaks are the most frustrating examples of infrastructure failure encountered by the public.

The major categories of infrastructure spending we identified are as follows:

#### *Affordable Housing: \$3.2 billion*

Hawaii is experiencing a crisis in its shortage of affordable housing.<sup>10</sup> The inadequate supply of affordable housing has resulted in housing costs reaching an intolerable level and Hawaii's cost of housing is one of the highest in the nation.

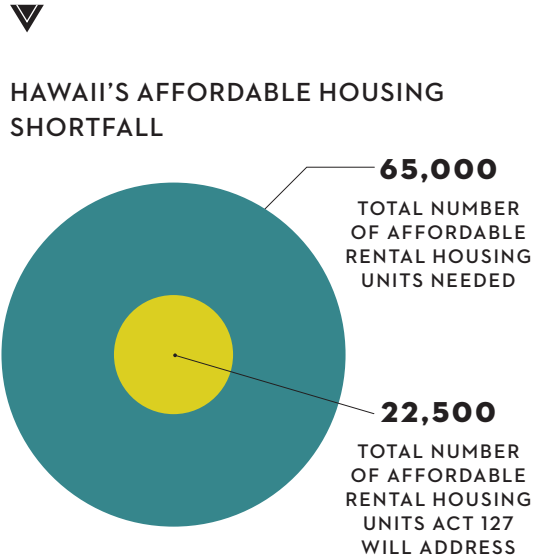
The severe shortage of affordable housing creates a vicious cycle. As residents leave Hawaii to find more affordable communities, employers struggle to hire needed employees. Without an adequate workforce, businesses are unable to expand and fewer jobs are created. This contributes to the "brain drain" as talented workers move elsewhere. A 2019 study found that 66% of 18-34 year-olds currently living in Hawaii have considered leaving Hawaii.<sup>11</sup>

<sup>9</sup>Hawaii Institute of Public Affairs, "State of Physical Infrastructure in Hawaii, Phase II" Accessed September 6, 2019. <http://hi-paonline.com/images/uploads/StateOfPhysicalInfrastructureinHawaiiPhaseII.pdf>

<sup>10</sup>A 2015 DBEDT study identified a need for 65,000 housing units to meet demand by 2025 with 44,000 of those units needed for low-income households earning 80% or less of Area Median Income.

<sup>11</sup>Pacific Resource Partnership, "Hawaii Perspectives", Accessed September 6, 2019. [https://2w57np2winy89on-j5k3rbd14-wpengine.netdna-ssl.com/wp-content/uploads/2019/04/HP\\_Spring-2019.pdf](https://2w57np2winy89on-j5k3rbd14-wpengine.netdna-ssl.com/wp-content/uploads/2019/04/HP_Spring-2019.pdf)

But government alone doesn't have the financial capacity to fix the affordable housing shortage. An initial appropriation by the State of \$200 million to the rental housing fund has been made. This initial investment as part of a \$1 billion total appropriation over ten years to the affordable rental housing revolving fund<sup>12</sup> will only address a fraction of the housing shortfall.<sup>13</sup> It is essential that the private sector fill the gap where government cannot. The 28,000-person housing waitlist for the Department of Hawaiian Homelands exemplifies the limitations and inertia of government-led development of affordable housing.<sup>14</sup>



Even the promise of privately financed housing in transit-oriented development (“TOD”) zones along the Honolulu rail route will go unfulfilled without adequate sewer, water, and electrical infrastructure in the areas surrounding the rail stations. The assessed cost of additional infrastructure to support TOD housing is \$1.4 billion.<sup>15</sup>

Private developers regularly cite inadequate infrastructure as among the major reasons for their inability to build more affordable housing.

*County Water and Wastewater: \$5.7 billion*

Freshwater, wastewater, and sewage systems are necessary to Hawaii’s infrastructure. They are large, extensive, and expensive. They require significant maintenance and investment resources. For example, the Honolulu Board of Water Supply anticipates a \$5.3 billion investment over the next thirty years in order to upgrade, replace, and maintain the potable water system on Oahu.<sup>16</sup> On the Big Island, a new \$100 million desalination plant in Kona was determined a necessary investment.<sup>17</sup>

<sup>12</sup> State of Hawaii, “Affordable Rental Housing 10 Year Plan”, Accessed September 8, 2019. [http://files.hawaii.gov/dbedt/op/spb/AffordableRentalHousingReport\\_10YearPlan.pdf](http://files.hawaii.gov/dbedt/op/spb/AffordableRentalHousingReport_10YearPlan.pdf)

<sup>13</sup> Affordable rental housing Act 127 (2016) will only address 22,500 households of the estimated 65,000 shortfall. [https://www.capitol.hawaii.gov/session2016/bills/GM1229\\_.PDF](https://www.capitol.hawaii.gov/session2016/bills/GM1229_.PDF)

<sup>14</sup> Hawaii Business Magazine, “Fixing the Backlog of Native Hawaiians Waiting for Homesteads”, Accessed September 6, 2019. <https://www.hawaiibusiness.com/hawaiian-homesteads-backlog/>

<sup>15</sup> State of Hawaii, “State TOD Strategic Plan”, Accessed September 8, 2019. [https://planning.hawaii.gov/wp-content/uploads/State-TOD-Strategic-Plan\\_Dec-2017-Rev-Aug-2018.pdf](https://planning.hawaii.gov/wp-content/uploads/State-TOD-Strategic-Plan_Dec-2017-Rev-Aug-2018.pdf)

<sup>16</sup> Board of Water Supply, “30 Year Investment Plan”, Accessed September 8, 2019. <https://www.boardofwatersupply.com/bws/media/files/hbws-30-year-infrastructure-investment-plan-summary-2018-03.pdf>

<sup>17</sup> Hawaii Tribune Herald, “Bonds Eyed for Desalination Plants”, Accessed September 9, 2019. <https://www.hawaiitribune-herald.com/2019/02/23/hawaii-news/bonds-eyed-for-desalination-plants/>





Sewer and wastewater systems in Honolulu have undergone extensive improvements since 2010. The City and County of Honolulu has been focused on preventing spills and protecting the environment due to a 2010 consent decree from the federal government.<sup>18</sup> A \$375 million Kailua to Kaneohe sewage project was completed in 2019 ahead of schedule and under budget.<sup>19</sup> But that project was only one phase and the City already issued a \$325 million bond in 2017 to fund the next phase required to comply with the federal consent decree.<sup>20</sup>

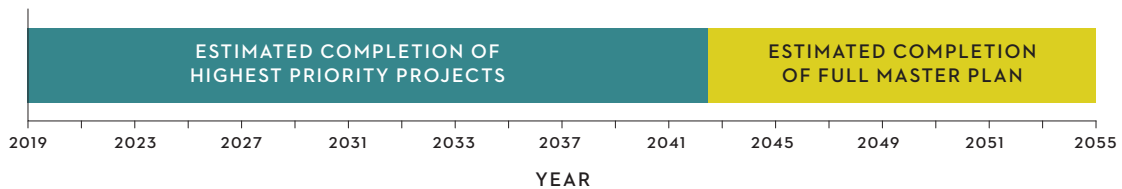
*Transportation: \$14.7 billion*

Transportation infrastructure on every island has failed to keep up with the growth of our population and tourism. Highway traffic congestion increases travel time for users with resultant economic loss and reduced quality of life. As modes of air and ocean transportation modernize, it becomes increasingly important for airports and harbors to invest in facilities that can accommodate new technology. The State of Hawaii anticipated \$5.5 billion in transportation future capital spending in 2014.<sup>21</sup>

Other transportation investments include the rail transit project overseen by the Honolulu Authority for Rapid Transit (“HART”). It is the most ambitious infrastructure project undertaken since H-3. Cost of construction is currently projected to reach \$9.2 billion.<sup>22</sup>



**RATE OF COMPLETION OF DOE’S LONG-TERM FACILITY MASTERPLAN WITH FUNDING AT \$300 MILLION PER YEAR**



*Public Schools: \$12.6 Billion*

An educated population is critical to both the quality of life and economic vitality of any community. The Department of Education and the University of Hawaii have crucial roles in delivering publicly funded educational services to our youth.

A 2019 study commissioned by the Department of Education determined it would cost \$11 billion to implement its long-term facility master plan to achieve the goal of “a qual-

<sup>18</sup> Pacific Business News, “Honolulu Spending \$5.2B On Sewage System, Not Expanding Capacity”, Accessed September 8, 2019. <https://www.bizjournals.com/pacific/blog/2016/01/honolulu-spending-5-2b-on-sewage-system-but-not.html>

<sup>19</sup> Honolulu Star Advertiser, “City Completes \$375 Million Kaneohe-Kailua Sewer Tunnel Project”, September 8, 2019. <https://www.staradvertiser.com/2018/06/21/breaking-news/city-completes-375-million-kaneohe-kailua-sewer-tunnel-project/>

<sup>20</sup> City and County of Honolulu, “Wastewater System Revenue Bonds”, Accessed September 8, 2019. [https://www.honolulu.gov/rep/site/bfs/treasury\\_docs/Wastewater\\_bond\\_2017.pdf](https://www.honolulu.gov/rep/site/bfs/treasury_docs/Wastewater_bond_2017.pdf)

<sup>21</sup> Hawaii Institute of Public Affairs, “State of Physical Infrastructure in Hawaii, Phase II”, Accessed September 6, 2019. <http://hipaonline.com/images/uploads/StateOfPhysicalInfrastructureinHawaiiPhaseII.pdf>

<sup>22</sup> Honolulu Star Advertiser, “Rail Recovery Funds Get Federal Approval”, Accessed September 8, 2019. <https://www.staradvertiser.com/2019/09/06/hawaii-news/rail-recovery-funds-get-federal-approval/>

ity school for every child, regardless of where they live.”<sup>23</sup> The report noted, however, that with the current level of legislative funding at \$300 million a year, it would take 23 years to complete just the highest priority projects and 36 years to fully implement the master plan. Until then, as many as three generations of students will be deprived of that “quality school” environment. Additionally, the University of Hawaii also aims to modernize its facilities in the near term with a six-year, \$1.6 billion plan.<sup>24</sup>

#### *Public Safety: \$1 billion*

Hawaii correctional facilities are overcrowded with negative impacts on both inmates and staff. A prison reform task force noted that more than \$1 billion in capital spending for new facilities has been identified on Oahu if the State of Hawaii built capacity for mainland prisoners.<sup>25</sup> The task force noted millions could be saved if Hawaii transitioned from a punitive to a rehabilitative correctional system.

State mental health facilities are similarly inadequate to service growing patient needs and has led to patient escapes and staff morale issues. Additionally, many homeless on the streets require institutional settings to care for their health but there is no capacity to accommodate them in existing facilities.

#### *Deferred Maintenance of Public Facilities and Public Facilities Improvements: \$8.9 billion*

The public facilities of the State and counties in Hawaii require significant investment for current maintenance responsibilities and future improvements. The total estimate for deferred maintenance was reported at over \$4.3 billion<sup>26</sup> just for the State of Hawaii public facilities. Furthermore, the previously noted HIPA study highlighted an estimated \$4.6 billion for future public facility improvements for Hawaii, Maui, and Oahu counties.<sup>27</sup> This figure includes multiple departments and counties from the 2014 HIPA study.<sup>28</sup>

#### *New Public Facilities: \$1.1 billion*

In addition to maintaining existing public facilities, significant investments in new facilities were proposed in 2019. The State of Hawaii appropriated \$350 million for the redevelopment and design of Aloha Stadium.<sup>29</sup> The project will be called the New Aloha Stadium Entertainment District and aims to build residential and business facilities. An additional public facility upgrade was requested on Oahu. The City and County of Ho-

<sup>23</sup> Civil Beat, “Hawaii DOE Statewide Facility Master Plan”, Accessed September 15, 2019. <https://www.documentcloud.org/documents/5912480-Hawaii-DOE-Statewide-Facility-Master-Plan-Final.html>

<sup>24</sup> Civil Beat, “UH Wants \$600 Million In 2019 To Modernize Its Crumbling Campuses”, Accessed September 8, 2019. <https://www.civilbeat.org/2018/09/uh-wants-600-million-in-2019-to-modernize-its-crumbling-campuses/>

<sup>25</sup> HCR Task Force, “Creating Better Outcomes, Safer Communities”, Access September 8, 2019. [https://www.courts.state.hi.us/wp-content/uploads/2018/12/HCR-85\\_task\\_force\\_final\\_report.pdf](https://www.courts.state.hi.us/wp-content/uploads/2018/12/HCR-85_task_force_final_report.pdf)

<sup>26</sup> State of Hawaii, “Estimated Deferred Maintenance Costs”, Accessed September 8, 2019. <https://budget.hawaii.gov/wp-content/uploads/2018/12/35-Appendix-5-Estimated-Deferred-Maintenance-Cost-FB19-21-PFP.ef3...pdf>

<sup>27</sup> Hawaii Institute of Public Affairs, “State of Physical Infrastructure in Hawaii, Phase II”, Accessed September 6, 2019. <http://hipaonline.com/images/uploads/StateOfPhysicalInfrastructureinHawaiiPhaseII.pdf>

<sup>28</sup> Ibid. Includes estimates from Maui and Hawaii counties in addition to the City and County of Honolulu Department of Design and Construction and County of Maui Department of Public Works.

<sup>29</sup> Honolulu Star Advertiser, “Ige Signs Bill To Fund Replacement For Aloha Stadium”, Accessed September 8, 2019. <https://www.staradvertiser.com/2019/07/09/sports/ige-takes-action-signs-bill-to-fund-replacement-for-aloha-stadium/>

nolulu aims to modernize the Neil Blaisdell campus at an estimated cost of \$772 million via a Public-Private-Partnership.<sup>30</sup>

*Other Private Infrastructure: \$909 million*

Electricity and internet communications are infrastructure necessities. The economy and internet depend on a resilient and reliable electric infrastructure. The first phase of modernizing the electric grid by the Hawaiian Electric Company is estimated to cost \$205 million.<sup>31</sup> Upgrades to modernize the electric grid will lead to higher electric rates for the people of Hawaii.<sup>32</sup> Also, the cost of modernizing broadband internet should be considered. The migration to 5G technology will need an estimated \$704 million of wireless infrastructure investment.<sup>33</sup> These private infrastructure investments are *not* included in our government infrastructure calculations but will be ultimately paid by businesses and consumers in Hawaii.



King tides hit the shores in front of the Halekulani Hotel in Waikiki.

The estimated \$47.2 billion in future infrastructure improvements over the next thirty years will require further investments due to the unprecedented weather impacts of natural disasters, sea level rise, and climate change.

**PREPARING FOR NATURAL DISASTERS AND CLIMATE CHANGE: \$15.3 BILLION**

The reality of climate change and the impact of global warming for island communities in the Pacific Ocean cannot be denied. Experts predict sea level rise to be more than 3

feet along coastlines before the end of this century.<sup>34</sup> Hawaii had recent direct experiences exacerbated by climate change.

<sup>30</sup> KHON 2 Online, "Request for Qualifications Sought for Neal S. Blaisdell Center Public-Private Partnership", Accessed September 8, 2019. <https://www.khon2.com/news/local-news/request-for-qualifications-sought-for-neal-s-blaisdell-center-public-private-partnership/>

<sup>31</sup> Hawaiian Electric Company, "Grid Modernization Hawaii's Grid For Our Customers", Accessed September 12, 2019. [https://www.hawaiianelectric.com/documents/clean\\_energy\\_hawaii/grid\\_modernization/final\\_august\\_2017\\_grid\\_modernization\\_strategy.pdf](https://www.hawaiianelectric.com/documents/clean_energy_hawaii/grid_modernization/final_august_2017_grid_modernization_strategy.pdf)

<sup>32</sup> KHON News, "Hawaiian Electric Proposes a Rate Increase", Accessed September 12, 2019. <https://www.khon2.com/news/hawaiian-electric-proposes-a-rate-increase/>

<sup>33</sup> Pacific Business News, "Next Generation 5G Could Add \$1.3B to Hawaii GDP", Accessed September 12, 2019. <https://www.bizjournals.com/pacific/news/2017/01/13/next-generation-5g-could-add-1-3b-to-hawaii-gdp.html>

<sup>34</sup> Hawaii News Now, "Impacts of Sea Level Rise Already Being Felt", Accessed September 8, 2019. <https://www.hawaiinewsnow.com/2018/09/20/hawaii-study-impacts-sea-level-rise-already-being-felt-it-will-only-get-worse/>

Increased flooding from storms has reached record levels. The Pacific hurricane season in 2018 set a record for the number of storms and their intensity. In April 2018, Kauai suffered the worst natural disaster since Hurricane Iniki. Torrential rains dumped 50 inches of rain in 24 hours setting a national record and causing \$20 million in damage to public buildings and \$80 million for highway repairs. In August 2018, Tropical Storm Lane became the wettest tropical cyclone on record with damage to roads and bridges on the Big Island at a cost exceeding \$42 million. Tropical Storm Olivia followed in September causing \$25 million in damage. That storm was noteworthy because it was the first time in modern history that such a storm made landfall in Maui County. If a hurricane were to hit Maui and Oahu, the damage would be catastrophic. Core systems and facilities would be disrupted for weeks before being restored. Ports would likely be damaged by storm surges, rendered inoperable, and threaten our food supply. Even without a hurricane, the impact of rising tides is already being felt in Hawaii.

Sea level rise has exacerbated the impact of “King Tides” and tidal flooding. Hawaii has recently experienced king tides affecting Waikiki and gave us a preview of the eventual effect of sea level rise. In 10 to 20 years, Waikiki may have daily flooding out of the storm drains at high tide. Sea level rise will undermine infrastructure and other improvements along shorelines, including roadways, buildings, harbor facilities and other structures.

The future of tourism in Waikiki will be challenged. Waikiki is particularly vulnerable from both the ocean and flooding from the mountains. The U.S. Army Corps of Engineers has identified a flooding risk from the Ala Wai Watershed that could affect 3,000 structures and cost more than \$1.14 billion in damages. To reduce the risk of such flooding, a mitigation project has been proposed at a cost of \$345 million. This is just one example highlighting the amount of investment that will be necessary in the years ahead to address the impact of climate change and sea level rise.

Unfortunately, this report is unable to quantify the expected costs related to the impact of climate change or the costs to manage the threat of the increased frequency of natural disasters. No comprehensive, official estimates exist. Sea level rise will affect harbors, airports, and highways but the agencies responsible for those facilities have yet to undertake studies to determine the impact of sea level rise on their facilities. The only preliminary estimate available was one from the Department of Transportation, Highways division. Based on the cost per mile and number of miles affected by sea level rise, it is estimated to cost \$15 billion to realign shoreline highways.<sup>35</sup> We have incorporated this number in our analysis.

Beyond the direct costs from the physical impacts of climate change, there will be social costs associated with climate-induced migration. Increased frequency of storms, floods, sea level rise and desertification will force many residents of Pacific Island communities to relocate. The people of Micronesia, the Marshall Islands, and Palau can live and work

<sup>35</sup> Civil Beat, “A \$15 Billion Price Tag to Protect Hawaii Highways From Climate Change”, Accessed September 8, 2019. <https://www.civilbeat.org/2018/04/a-15-billion-price-tag-to-protect-hawaii-highways-from-climate-change/>

in the United States without a visa because of the Compact of Free Association. Because Hawaii is similar to their home, Hawaii is a popular destination for migrants from these nations. As their home islands are confronted with the effects of climate change, the number of migrants to Hawaii will likely increase. Thus, the \$300 million in annual government services provided today by the State of Hawaii will increase due to climate change.<sup>36</sup> This future cost of additional social services is not included in our analysis.

In total, the future natural disaster and climate changes improvements over the next thirty years will likely surpass our current \$15.3 billion estimate. However, this estimate is significantly less than the State of Hawaii's current obligations for retiree pension and healthcare fiscal obligations.

**MEETING STATE EMPLOYEE HEALTHCARE AND PENSION OBLIGATIONS:  
\$25.7 BILLION**

Public employees in Hawaii enjoy pension and retiree healthcare benefits. Their right to enjoy vested retirement benefits is guaranteed by the State Constitution<sup>37</sup> and must be honored by the State and counties who employ them.

Over several decades, benefits have been modified and enhanced through legislation and collective bargaining, often without a full understanding of their full cost and financing. The long-term nature of retirement benefits made funding their true cost easier to overlook. As the State faced fiscal deficits, deferring payroll contributions to the Hawaii Employees Retirement System ("ERS") was a convenient ploy to find dollars to fund other current needs. Regarding the Employer-Union Health Benefits Trust Fund ("EUTF") which administers retiree healthcare benefits, there was no mandated prefunding until 2015 when the Legislature made a provision for annual contributions to prefund future costs.

In the first decade of the twenty-first century, local economic growth slowed as population growth leveled off. Healthcare costs continued their sharp increase and market returns tumbled as multiple fiscal crises rippled through the global economy. Longstanding state laws made it extremely difficult for the State to adequately fund its pension and retiree healthcare benefits. Although many of these laws were eventually changed, the costs to fund pension and retiree healthcare benefits grew to unmanageable levels.

As a result, the funded ratio of the ERS fell from 94% in 2000 to 55% in 2018 and was underfunded by \$13.4 billion.<sup>38</sup> The EUTF has a funded ratio of 13% and is underfunded by \$12.2 billion.<sup>39</sup> From 2020, the public employers will need to make annual contributions

<sup>36</sup> Big Island Video News, "Federal Compact Aid Insufficient", Accessed September 6, 2019. <https://www.bigislandvideonews.com/2019/05/15/video-federal-compact-aid-insufficient-rep-case-tells-doi-secretary>

<sup>37</sup> Article XVI, Section 2 of the State Constitution provides: "Membership in any employees' retirement system of the State or any political subdivision thereof shall be a contractual relationship, the accrued benefits of which shall not be diminished or impaired."

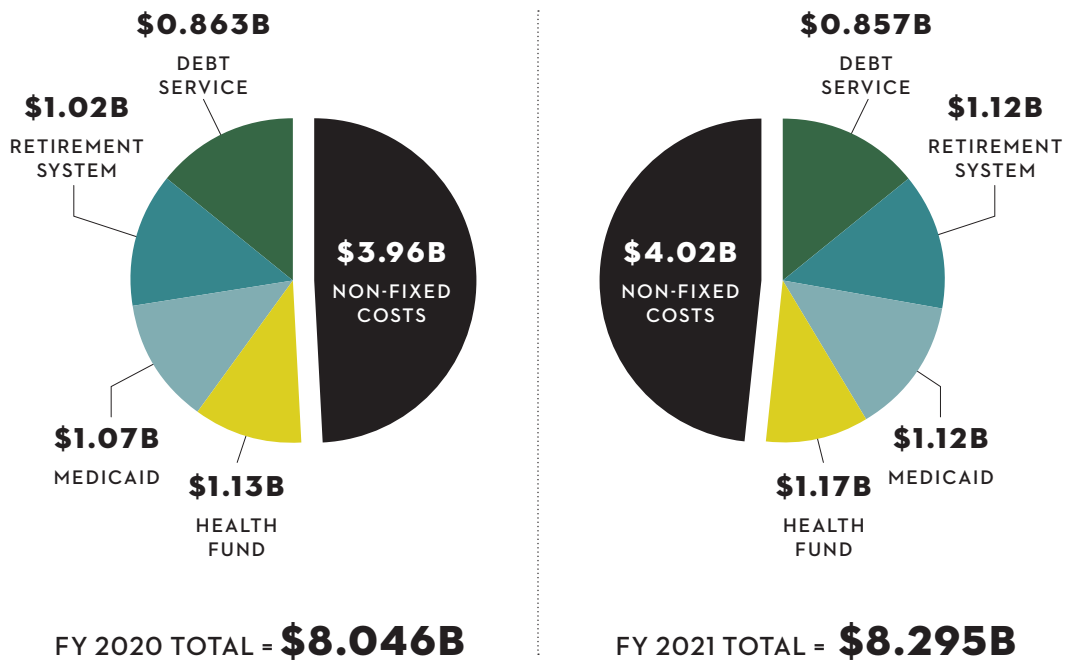
<sup>38</sup> The current total estimated liability to meet ERS' pension obligations is \$29.9 billion.

<sup>39</sup> The current total estimated liability to meet EUTF's retiree healthcare obligations is \$14.6 billion.



STATEWIDE TOTALS BY FIXED VS. NON-FIXED - GENERAL FUNDS

\*Due to rounding, numbers may not add to total.



to the ERS and EUTF in amounts equal to 48% of the payroll cost for general employees and 65% of the payroll cost for police and fire personnel.

By 2022, over half of the State’s annual general fund will be allocated to funding retiree pensions and healthcare, debt service payments, and Medicaid.<sup>40</sup> If tax revenues do not increase enough, a larger share of the budget will be required to satisfy these expenses. Eventually, these constitutionally protected obligations will crowd out other government services such as public education, public safety, health and social services, and environmental protection.

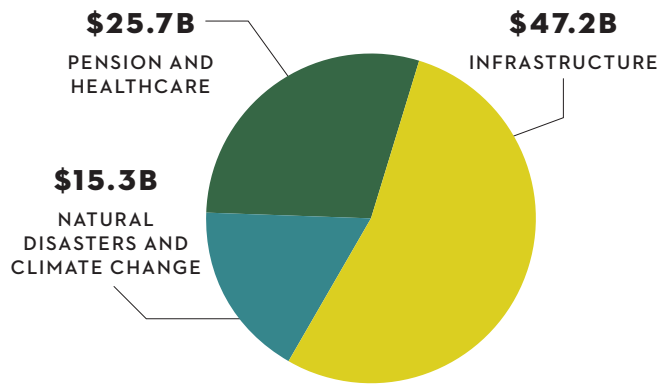
The current unfunded liability for retiree pension and healthcare benefits amount to over \$25.7 billion. In addition, the \$47.2 billion for infrastructure and \$15.3 billion for natural disaster and climate change preparation will further impact government services. The combined \$88 billion poses a fiscal challenge that requires a *movement* of civic engagement.

<sup>40</sup> FY 2019-21 Executive Biennium Budget; Budget in Brief; Prepared by the Department of Budget and Finance.

# HAWAII GOVERNMENT FUTURE EXPENSES OVER THE NEXT 30 YEARS



FUTURE HAWAII GOVERNMENT EXPENSES = **\$88.2B**



## FUTURE INFRASTRUCTURE EXPENSES

\*Due to rounding, numbers may not add to total.

INFRASTRUCTURE	COST (IN BILLIONS)
<b>AFFORDABLE HOUSING</b>	<b>\$3.2</b>
STATE RENTAL HOUSING	\$1.0
STATE PERMANENT SUPPORT HOUSING	\$0.8
TOD INFRASTRUCTURE UPGRADES	\$1.4
<b>COUNTY WATER &amp; WASTEWATER</b>	<b>\$5.7</b>
HONOLULU BWS	\$5.3
HONOULU SEWAGE	\$0.3
KONA DESALINATION PLANT	\$0.1
<b>TRANSPORTATION</b>	<b>\$14.7</b>
STATE DOT	\$5.5
HONOLULU RAIL	\$9.2
<b>PUBLIC EDUCATION</b>	<b>\$12.6</b>
DOE FACILITY MODERNIZATION	\$11.0

INFRASTRUCTURE	COST (IN BILLIONS)
UH FACILITY MODERNIZATION	\$1.6
<b>PUBLIC SAFETY</b>	<b>\$1.0</b>
HONOLULU PRISON UPGRADES	\$0.5
NON-HONOLULU PRISON UPGRADES	\$0.5
<b>PUBLIC FACILITIES</b>	<b>\$8.9</b>
COUNTY OF HONOLULU	\$2.7
COUNTY OF HAWAII	\$0.4
COUNTY OF MAUI	\$1.5
STATE DEFERRED MAINTENANCE	\$4.3
<b>NEW FACILITIES</b>	<b>\$1.1</b>
ALOHA STADIUM	\$0.4
NEAL BLAISDELL CENTER	\$0.8
<b>TOTAL</b>	<b>\$47.2</b>



FUTURE NATURAL DISASTERS AND CLIMATE CHANGES EXPENSES

NATURAL DISASTERS AND CLIMATE CHANGE	COST (IN BILLIONS)
ALA WAI FLOODING PROJECT	\$0.3
STATE HIGHWAYS RELOCATION	\$15.0
<b>TOTAL</b>	<b>\$15.3</b>



FUTURE RETIREE PENSION AND HEALTHCARE UNFUNDED LIABILITIES

PENSION AND HEALTHCARE	COST (IN BILLIONS)
ERS PENSION	\$13.4
EUTF HEALTHCARE	\$12.3
<b>TOTAL</b>	<b>\$25.7</b>



## NEXT STEPS FOR CIVIC ENGAGEMENT



Each of the three fiscal challenges is massive. In combination, they can appear overwhelming. Although we would have preferred not to paint an ominous picture of the fiscal journey ahead, our research consistently pointed to turbulent waters that will have to be navigated. We recognize that there are no easy answers and we offer none. Rather, we only quantify the problem confronting us and propose a *process* to find the right solutions. We firmly believe it is not too late to create and implement solutions. It is time for us to commit in addressing these fiscal challenges.

We must develop strategies and policies for managing our fiscal challenge. That will be the next phase for Hawaii Executive Conference to undertake as part of its Hawaii



CHANGE Initiative. Timeliness in embarking upon such an effort is critical. Our ability to control our options will shrink as our financial resources diminish.

We must anticipate and be proactive in order to succeed. We must demand that government, business, and labor leaders make decisions based on a careful consideration of the short and long-term welfare of Hawaii's citizens. The elements of the next phase will incorporate the following:

#### STRATEGIC VISION

##### *Communication*

The fiscal challenge will impact everyone in Hawaii. Accordingly, our concern about the situation should be communicated to a wider audience. The broader community needs to recognize that the status quo cannot be maintained. Change will happen whether





we like it or not. Our communication strategy must aim to cultivate a community-wide collective resolve to affirmatively bring about positive change.

#### *Identify and Recruit Leaders*

Communities rely on leaders to provide vision and chart paths to address problems. This situation is no different. We cannot only rely on our elected officials. They lack the necessary resources and expertise to address these fiscal challenges. The very nature of their profession causes them to be reluctant to embrace change because of perceived negative popular reaction. They need our help and support.

We need to recruit leaders in our community who are willing to contribute their talents and resources to develop a strategic vision. We must generate and implement policy-based solutions. Leaders from diverse sectors with different perspectives should be included. We need thought-leaders and influencers to be engaged with the next phase. Representatives of government, business, labor, academia, and other interest groups must not let differences deter them from participating in the process. Most importantly, a younger generation of leaders need to be engaged to formulate the vision of what kind of community they want to live in. The common link, however, must be an abiding love of and commitment to a better future for Hawaii.

### COLLABORATION

#### *Convene Working Groups*

We will convene a diverse set of leaders in working groups to inform and solicit input on strategies and policy recommendations. The groups should span a range of views from the community to gain a comprehensive perspective. At some future stage, convening a major convention of community leaders will be needed in building broad-based consensus and support for recommendations to be put forward to decision-makers. Tough decisions, sacrifices, and compromises will be a part of the next process phase. Our hope is that our shared values and shared identity will enable us to reach common ground solutions.

### INNOVATION

#### *Embrace Change*

The status quo will not suffice. We must demonstrate a willingness to embrace fundamental change. In that regard, we need to innovate and be creative in our thinking. We must be bold. An open mind in evaluating options will be critical as there are no easy models that can be simply adopted and implemented for our unique circumstance. Innovating our economy and government will be critical to addressing our fiscal challenges.



## MOVING FORWARD TOGETHER



As an isolated island community we rise and sink together. The authors of this report remain hopeful that we can rise together to meet our challenges.

The first thirty years of statehood demonstrates that positive change is possible by growing our economy. We must commit to public investments in order to build and maintain infrastructure, prepare for natural disasters and sea level rise, and meet public employee pension and retiree healthcare obligations. It has been done before and we must do it again.

As we move forward into the next thirty years, we can take inspiration from our Polynesian ancestors who traveled across the Pacific Ocean. With limited resources and great uncertainty of reaching their destination, their courage, skill, and teamwork enabled them to successfully navigate troubled waters to reach the shore of a new future.

Our own journey will require great courage and fortitude. We must have strategic vision, a willingness to collaborate, and an open mind to innovate. We have the capacity for all three within our community of leaders. Let us go forward with a determination to successfully chart a path toward a better future for Hawaii.



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## LIST OF HAWAII GOVERNMENT FUTURE EXPENSES

\*Due to rounding, numbers may not add to total.

HAWAII GOVERNMENT EXPENSES	IN BILLIONS(\$)	WEBSITE
<b>AFFORDABLE HOUSING</b>	<b>\$3.2</b>	
STATE RENTAL HOUSING	\$1.0	<a href="http://files.hawaii.gov/dbedt/op/spb/AffordableRentalHousingReport_10YearPlan.pdf">http://files.hawaii.gov/dbedt/op/spb/AffordableRentalHousingReport_10YearPlan.pdf</a>
STATE PERMANENT SUPPORT HOUSING	\$0.8	<a href="https://dbedt.hawaii.gov/hhfdc/files/2019/07/AAP-PY2019_FINAL.pdf">https://dbedt.hawaii.gov/hhfdc/files/2019/07/AAP-PY2019_FINAL.pdf</a>
TOD INFRASTRUCTURE UPGRADES	\$1.4	<a href="https://planning.hawaii.gov/wp-content/uploads/State-TOD-Strategic-Plan_Dec-2017-Rev-Aug-2018.pdf">https://planning.hawaii.gov/wp-content/uploads/State-TOD-Strategic-Plan_Dec-2017-Rev-Aug-2018.pdf</a>
<b>COUNTY WATER &amp; WASTEWATER</b>	<b>\$5.7</b>	
HONOLULU BWS	\$5.3	<a href="https://www.boardofwatersupply.com/bws/media/files/hbws-30-year-infrastructure-investment-plan-summary-2018-03.pdf">https://www.boardofwatersupply.com/bws/media/files/hbws-30-year-infrastructure-investment-plan-summary-2018-03.pdf</a>
HONOLULU SEWAGE	\$0.3	<a href="https://www.honolulu.gov/rep/site/bfs/treasury_docs/Wastwater_bond_2017.pdf">https://www.honolulu.gov/rep/site/bfs/treasury_docs/Wastwater_bond_2017.pdf</a>
KONA DESALINATION PLANT	\$0.1	<a href="https://www.hawaiitribune-herald.com/2019/02/23/hawaii-news/bonds-eyed-for-desalination-plants/">https://www.hawaiitribune-herald.com/2019/02/23/hawaii-news/bonds-eyed-for-desalination-plants/</a>
<b>TRANSPORTATION</b>	<b>\$14.7</b>	
STATE DOT	\$5.5	<a href="http://hipaonline.com/images/uploads/StateOfPhysicalInfrastructureinHawaiiPhaseII.pdf">http://hipaonline.com/images/uploads/StateOfPhysicalInfrastructureinHawaiiPhaseII.pdf</a>
HONOLULU RAIL	\$9.2	<a href="https://www.staradvertiser.com/2019/09/06/hawaii-news/rail-recovery-funds-get-federal-approval/">https://www.staradvertiser.com/2019/09/06/hawaii-news/rail-recovery-funds-get-federal-approval/</a>
<b>PUBLIC EDUCATION</b>	<b>\$12.6</b>	
DOE FACILITY MODERNIZATION	\$11.0	<a href="https://www.civilbeat.org/2019/04/doe-lays-out-a-10-year-road-map-for-fixing-old-schools-building-new-ones/">https://www.civilbeat.org/2019/04/doe-lays-out-a-10-year-road-map-for-fixing-old-schools-building-new-ones/</a>
UH FACILITY MODERNIZATION	\$1.6	<a href="https://www.civilbeat.org/2018/09/uh-wants-600-million-in-2019-to-modernize-its-crumbling-campuses/">https://www.civilbeat.org/2018/09/uh-wants-600-million-in-2019-to-modernize-its-crumbling-campuses/</a>
<b>PUBLIC SAFETY</b>	<b>\$1.0</b>	
HONOLULU PRISON UPGRADES	\$0.5	<a href="https://www.civilbeat.org/2019/03/ige-turns-to-private-prison-firm-for-new-oahu-jail/">https://www.civilbeat.org/2019/03/ige-turns-to-private-prison-firm-for-new-oahu-jail/</a>
NON-HONOLULU PRISON UPGRADES	\$0.5	<a href="https://www.courts.state.hi.us/wp-content/uploads/2018/12/HCR-85_task_force_final_report.pdf">https://www.courts.state.hi.us/wp-content/uploads/2018/12/HCR-85_task_force_final_report.pdf</a>
<b>PUBLIC FACILITIES</b>	<b>\$8.9</b>	
COUNTY OF HONOLULU	\$2.7	<a href="http://hipaonline.com/images/uploads/StateOfPhysicalInfrastructureinHawaiiPhaseII.pdf">http://hipaonline.com/images/uploads/StateOfPhysicalInfrastructureinHawaiiPhaseII.pdf</a>
COUNTY OF HAWAII	\$0.4	<a href="http://hipaonline.com/images/uploads/StateOfPhysicalInfrastructureinHawaiiPhaseII.pdf">http://hipaonline.com/images/uploads/StateOfPhysicalInfrastructureinHawaiiPhaseII.pdf</a>
COUNTY OF MAUI	\$1.5	<a href="http://hipaonline.com/images/uploads/StateOfPhysicalInfrastructureinHawaiiPhaseII.pdf">http://hipaonline.com/images/uploads/StateOfPhysicalInfrastructureinHawaiiPhaseII.pdf</a>
STATE DEFERRED MAINTENANCE	\$4.3	<a href="https://budget.hawaii.gov/wp-content/uploads/2018/12/35-Appendix-5-Estimated-Deferred-Maintenance-Cost-FB19-21-PFP.ef3_.pdf">https://budget.hawaii.gov/wp-content/uploads/2018/12/35-Appendix-5-Estimated-Deferred-Maintenance-Cost-FB19-21-PFP.ef3_.pdf</a>

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<b>HAWAII GOVERNMENT EXPENSES</b>	<b>IN BILLIONS(\$)</b>	<b>WEBSITE</b>
<b>NEW FACILITIES</b>	<b>\$1.1</b>	
ALOHA STADIUM	\$0.4	<a href="https://www.staradvertiser.com/2019/07/09/sports/ige-takes-action-signs-bill-to-fund-replacement-for-alo-ha-stadium/">https://www.staradvertiser.com/2019/07/09/sports/ige-takes-action-signs-bill-to-fund-replacement-for-alo-ha-stadium/</a>
NEAL BLAISDELL CENTER	\$0.8	<a href="https://www.khon2.com/news/local-news/request-for-qualifications-sought-for-neal-s-blaisdell-center-public-private-partnership/">https://www.khon2.com/news/local-news/request-for-qualifications-sought-for-neal-s-blaisdell-center-public-private-partnership/</a>
<b>NATURAL DISASTERS AND CLIMATE CHANGE</b>	<b>\$15.3</b>	
ALA WAI FLOODING PROJECT	\$0.3	<a href="https://www.poh.usace.army.mil/Missions/Civil-Works/Civil-Works-Projects/Ala-Wai-Flood-Risk-Management-Project/">https://www.poh.usace.army.mil/Missions/Civil-Works/Civil-Works-Projects/Ala-Wai-Flood-Risk-Management-Project/</a>
STATE HIGHWAYS RELOCATION	\$15.0	<a href="https://www.civilbeat.org/2018/04/a-15-billion-price-tag-to-protect-hawaii-highways-from-climate-change/">https://www.civilbeat.org/2018/04/a-15-billion-price-tag-to-protect-hawaii-highways-from-climate-change/</a>
<b>PENSION AND HEALTHCARE</b>	<b>\$25.7</b>	
ERS PENSION	\$13.4	<a href="http://ers.ehawaii.gov/wp-content/uploads/2019/01/2018-Actuarial-Valuation.pdf">http://ers.ehawaii.gov/wp-content/uploads/2019/01/2018-Actuarial-Valuation.pdf</a>
EUTF HEALTHCARE	\$12.3	<a href="https://eutfhawaii.gov/wp-content/uploads/2019/01/2018-EUTF-Aggregate-OPEB-Valuation-Report-secured.pdf">https://eutfhawaii.gov/wp-content/uploads/2019/01/2018-EUTF-Aggregate-OPEB-Valuation-Report-secured.pdf</a>
<b>TOTAL</b>	<b>\$88.2</b>	