



THE ECONOMIC RESEARCH ORGANIZATION
AT THE UNIVERSITY OF HAWAII

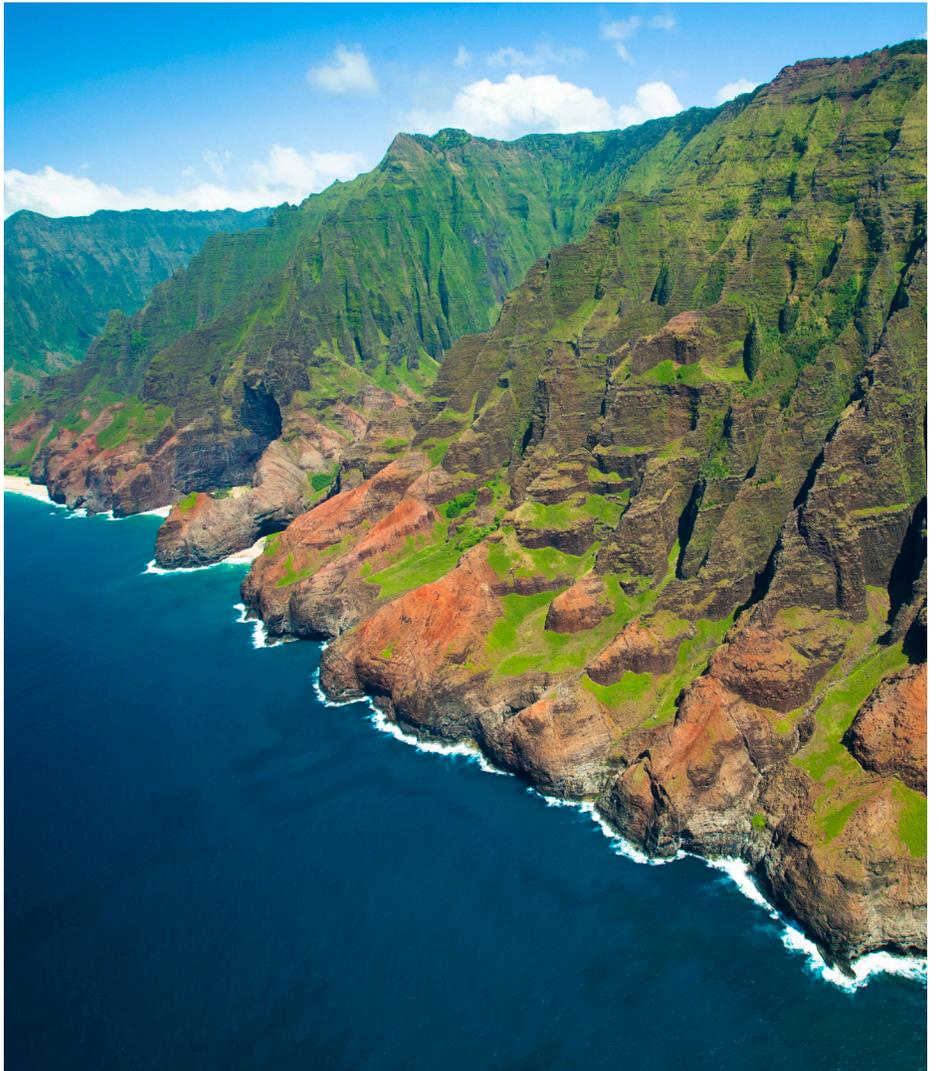
UHERO FORECAST PROJECT

KAUAI ECONOMIC OUTLOOK SUMMARY

PREPARED FOR THE COUNTY OF KAUAI

KAUAI DOWNSHIFTING, BUT GROWTH PRESSURES REMAIN

JUNE 14, 2019





UHERO

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**KAUAI ECONOMIC OUTLOOK SUMMARY
PREPARED FOR THE COUNTY OF KAUAI**

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Executive Summary

Economic growth on the Garden Isle has receded over the past year. An early 2018 surge in visitor arrivals ended by mid-year, and the job count also plateaued. Growth will remain modest, both for the visitor industry and the economy overall. Long-term structural challenges remain, including burgeoning visitor numbers, congestion, a lack of affordable housing, and workforce limitations.

- Kauai saw a sharp surge in visitors at the start of last year, facilitated by a massive increase in direct airlift that began in 2017. The upward momentum ended by early summer, and arrivals have pulled back somewhat this year. The near-term outlook for Kauai tourism sees much smaller incremental gains than we have experienced in recent years. Last April's North Shore flooding, while not having a discernible impact on aggregate visitor numbers, dealt a heavy blow to the affected communities. Recovery continues.
- The island led the state in job growth last year, but gains ended by mid-year, and the job count has remained at essentially the same level since then. Given softer economic conditions, prospects are for limited additional employment growth over the next several years. While the unemployment rate has ticked up, the labor market remains very tight. This has helped to support income growth but also presents challenges to employers, who struggle to find qualified workers.
- While tourism remains by far the largest employer on Kauai, important contributions to growth come from an array of other sectors. Healthcare is a steady performer. Job growth in the building trades eased somewhat last year, but remains near levels seen at the mid-2000s peak. In agriculture, coffee and seed corn remain dominant players, but there are opportunities for growth in diversified crops as well. The island's limited technology sector is anchored by the Pacific Missile Range Facility.
- Slower growth may be a welcome respite for many on Kauai, given familiar challenges, including the adverse impacts of excessive visitor growth, the high cost and inadequate supply of housing, and constraints posed by a limited workforce and a lack of economic opportunity. There is broad consensus that tackling these challenges will be key to preserving a high quality of life on Kauai.

Kauai Outlook

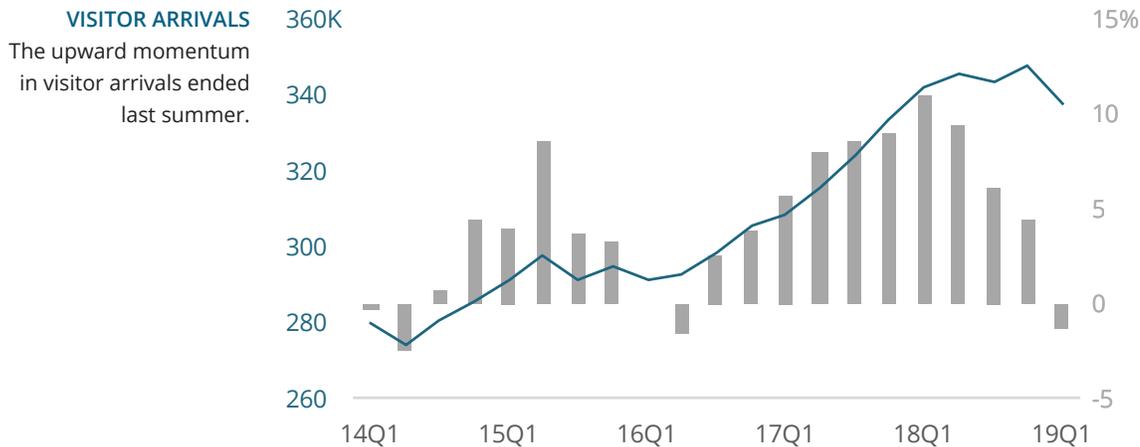
The Garden Isle economy started last year off with a bang, but with growth ebbing as the year progressed. As in the state overall, an early surge in visitor arrivals ended by mid-year, and job growth also plateaued. For the next several years, the county can expect a much more restrained pace of growth than it has seen in recent years, both for the visitor industry and the broader economy. Key structural issues will continue to pose challenges, including how best to manage tourism, address housing affordability, and develop the island's workforce and economic opportunities.

Visitor Industry

The historic April flooding on Kauai's North Shore was the top news item for 2018, but perhaps equally important was a sharp surge in visitors at the start of the year that, despite second-half slowing, generated new annual records for the tourism industry. In the first half of the year, both visitor arrivals and spending rose at high single-digit rates. The upward momentum ended by early summer, but arrivals numbers remained near all-time highs through December.

Last year's first-half growth was facilitated by a massive increase in airlift that had occurred over the course of 2017 and early 2018. The total number of airline seats increased by an astounding 32%, surpassing one million for the first time in the island's history. The seat gains, which were concentrated in new direct flights from US and Canadian markets, propelled domestic arrivals 10% higher in the year's first half, before flattening out. (The April flooding, while devastating to North Shore communities and businesses, had no discernible impact on aggregate visitor numbers.) Following a statewide pattern, arrivals from markets outside North America declined over the course of the year, although these represent very small markets for Kauai. As industry conditions softened a bit in the year's second half, hotel occupancy edged down from about 77% to less than 75% in the third and fourth quarters.

The sustained growth of recent years has raised visitor numbers substantially. The average daily census in 2018 stood at more than 28,000 visitors, compared with about 22,000 guests in 2007. Much of this rise in



tourists has been accommodated by a marked expansion in the use of home vacation rentals. According to the Hawaii Tourism Authority, in 2017 there were about 1,800 home vacation rentals and 1,600 condo hotel units on Kauai, together more than 11% of the roughly 30,000 Island homes counted by the US Census Bureau. Other estimates of the number of home vacation rentals are higher. In response, the County has stepped up enforcement actions against illegal rentals and is now conducting 150–250 investigations each year. The County had been watching closely State legislative efforts to crack down on advertising of illegal rentals on home vacation rental booking sites. With the failure of those efforts during this year’s session, there may be increased pressure for additional County-level action.

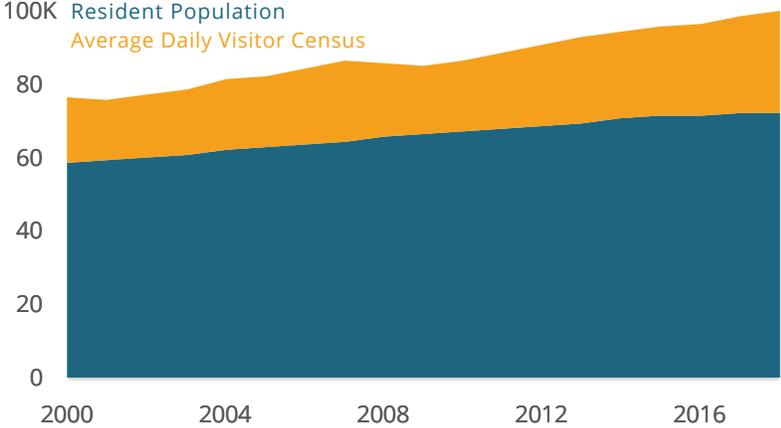
On any given day, about one quarter of the island’s population are tourists. The rapid growth in visitor numbers and the nature of visitor stays has led to concerns about *overtourism*. Increasingly independent visitors—staying in home rentals instead of hotels, traveling in private cars rather than tour buses—impose new stresses on the island’s infrastructure and communities, at a time when the local population has also risen to new highs. In addition to home vacation rental enforcement, this entails public policy challenges ranging from stepped up demands for roadway investments, increasing need for shuttle services, and pressure to limit access to parks.

The visitor industry is acutely aware of these challenges and the threat they pose to the Kauai brand and the local way of life. The Kauai Tourism Strategic Plan for 2019–2021 calls for refocusing away from an emphasis on growing tourism numbers and spending toward “quality of life” metrics that encompass the visitor experience, the impact on local communities, and the welfare of industry employees. To that end, the plan outlines a range of goals and measures, including managing industry growth, improving traffic and transit, enforcing effective regulations and restrictions on alternative accommodations, encouraging sustainable industry practices, and communicating best practices to visitors, residents, and other stakeholders. The Strategic Plan sees Kauai becoming a leader in the nascent global movement toward more sustainable tourism industries.

North Shore recovery is continuing. Damage from the historic April flooding has required extensive highway repairs, with work on three bridges continuing. Reopening of the highway from Waikoko to the end at Haena

RESIDENT POPULATION AND DAILY VISITOR CENSUS

On any given day, about one quarter of Kauai’s population are tourists.



State Park has been pushed back again. The park itself and other amenities are expected to reopen in June. While there is a desire to get businesses up and running, local residents are also concerned about opening up access to large numbers of visitors before roads and parks are fully ready. When Haena park does reopen, there will be a 900 persons-per-day limit, and visitors will pay a \$5/car entrance fee. Since the beach access to the popular Black Pot Beach as well as the Wainiha and Haena areas has been restricted, Hanalei beach access areas have been extremely congested. The County has approved funding to initiate shuttle service on the North Shore to help to alleviate traffic and local impacts. That service is expected to begin in June.

Plans for the only two new resorts on Kauai, a rebuilt Coco Palms Resort and nearby Coconut Beach Resort, have been derailed at least for now, due to loan defaults by developers. Even if financing can be found, permits for the Coco Palms redevelopment are set to expire soon. It is unclear whether the County would be willing to grant a further extension, and if so, whether there will be a lower number of permitted units. Among existing resorts, there are plans for a new timeshare wing at the Sheraton Kauai, although this appears to have been put on the back burner following the 2016 acquisition by Marriott of Starwood Hotels and Resorts. The Timbers Kauai Ocean Club and Residences has entitlements for a couple hundred units but no announced plans on when that might move forward. Starwood Capital Group closed its \$225 million purchase of the St. Regis Princeville Resort and Makai Golf Club last year. Starwood Capital reportedly plans to invest \$80 million to reposition the property as a wellness resort. In 2017, Developer Jeff Stone announced plans for an eighty-unit hotel overlooking Hanalei Bay, after a more ambitious project by eBay billionaire Pierre Omidyar fell through. There is no indication whether and when the project will move forward.

The near-term outlook for Kauai tourism sees much smaller incremental gains than we have experienced in recent years. This year has started off weak, with arrivals running more than 1% lower than year-earlier levels. The boost that Kauai enjoyed last year, as bookers redirected some tourists away from the Big Island and Puerto Rico, has now passed, and these areas have ramped up marketing. Stiffer competition is also coming from Mexico. And available accommodations of all types remain very limited. Nevertheless, airlines expect to maintain seat numbers near the recent record highs in coming months. For the year as a whole, we expect less than 1% growth in total arrivals, firming to 2.5% in 2020. Among market areas, we anticipate restrained growth for US and emerging international arrivals. The Japanese market, already small, will see only very modest additional growth. With limited additions to the stock of traditional accommodations, the hotel occupancy rate will remain in the 75% range for the next few years.

Employment and sectoral activity

Kauai's unemployment rate bottomed out at a record low rate of 2.2% in the first quarter of last year. By year end, it had ticked up to 2.7%, as the pace of hiring slowed. The number of nonfarm payroll jobs on the island grew by 1.3% last year. While more than twice the statewide average, this was a full percentage point lower than the rate of growth in 2017. Growth ended by mid year, and the nonfarm job count has remained at essentially the same level since then. Given softer economic conditions, prospects are for limited additional employment growth for the next several years.

The accommodation and food service industry makes up more than a quarter of all nonfarm jobs on Kauai. Since the recovery from the 2008-2009 recession began, jobs in this category have grown at a 3% average annual rate. The pace of job growth stepped down sharply last year to about 1%, after a more than 4% surge in 2017. Employment in the sector will remain muted now that arrivals growth has downshifted to a more modest pace. Jobs in the transportation and utilities sector slowed last year and will see additional deceleration in 2019.

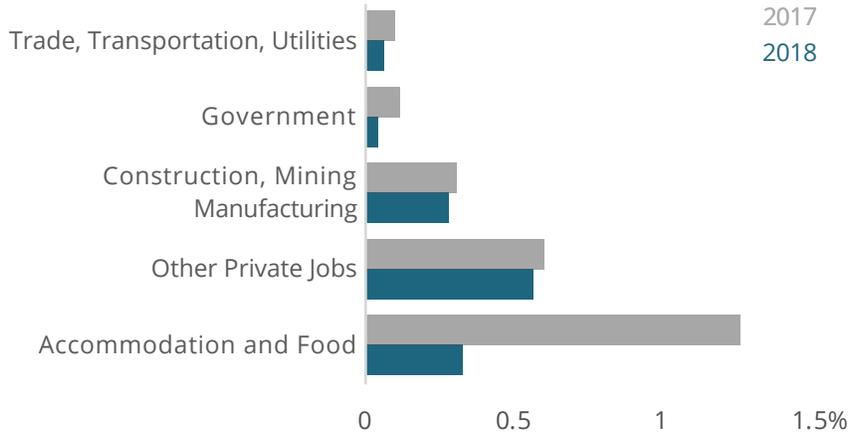
In the trade sector, job numbers were flat last year, and prospects remain poor for additional employment growth. Kauai’s small market has always been a challenge for retailers, and the increased pressure from online shopping sites and big box retailers has led to store closures. Among recent changes to the retail scene, renovations of the Coconut Marketplace finished this past year, including the addition of an ABC Country Market store. Kauai Medical Clinic has broken ground on a new full-service clinic at the Kauai Village Shopping Center. In Lihue’s urban core, keeping storefronts full is challenging. The County is working to revitalize Rice Street as a walkable, bike-friendly mixed use community, supported in part by US Department of Transportation TIGER (Transportation Investment Generating Economic Recovery) grant. Some large vacant spaces have attracted short-term “pop-up” stores, and food trucks are also increasing in popularity. In Koloa, there was a ground-breaking last year for Koloa Village, which will eventually include 47,000 square feet of commercial space and 36 residential units.

Private healthcare jobs have grown relatively rapidly in recent years, but with substantial year-to-year variation. Last year saw a nearly 1% increase in the industry’s employment, and after a soft 2019 we expect job growth to move above the average for all sectors. An aging population and higher per-capita healthcare consumption will support further expansion in coming years. Advanced healthcare services are sometimes in short supply on Kauai. It is not uncommon for Neighbor Island residents to fly to Honolulu for surgeries, births, and critical emergencies, due to lack of medical services on the Neighbor Islands. Physician shortages are especially problematic for Kauai, the county with the fewest number of healthcare workers per resident.

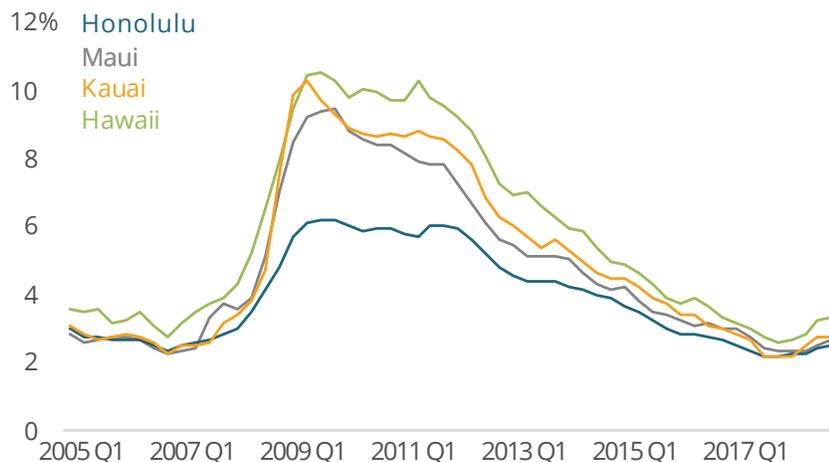
Public sector hiring will remain muted, given budget constraints at the federal, state, and local levels. Census hiring will provide a short-term lift to federal jobs this year and next, but hiring at all levels will trend downward thereafter.

CONTRIBUTIONS TO PAYROLL JOB GROWTH IN KAUAI COUNTY

Tourism industry job growth receded in 2018.



UNEMPLOYMENT RATE
Kauai's unemployment rate ticked up to 2.7% by the end of 2018.



Overall, we expect growth in nonfarm payroll jobs to come in at just 0.7% this year, a little more than half the 2018 pace. Given limits to visitor industry expansion, employment growth is likely to remain at roughly the same pace for the next several years. Moderate growth in the face of a tight labor supply will keep the unemployment rate relatively low by historical standards.

Over the longer term, employment growth on the Garden Isle will be constrained by available labor. Annual increases in the labor force have fallen off over the past several years, reflecting a marked decline in the rate of population growth. Over the 2016-2018 period, growth of the population on Kauai averaged less than a half-percent annually, compared with more than 1% during the 2010-2015 period. The recent slowing may in part reflect abundant job opportunities on the mainland during a period of exceptional strength, but congestion and rising costs of living on Kauai also likely play a role. We expect these factors to continue to restrain the island's population growth in coming years.

Income and prices

Tight labor market conditions are continuing to deliver healthy income gains, if lower than the robust pace experienced in the 2014-2015 period. Total real personal income of Kauai residents averaged 2.3% annual growth over the past three years (2018 is a UHERO estimate). In per capita terms, real income expanded at just under a 2% average annual pace. With the economy downshifting onto a lower growth path, income growth will slow along with jobs, slipping to 0.6% this year and recovering slightly above 1% going into the next decade.

Inflationary pressures eased a bit last year, with Honolulu inflation coming in at just under 2% after hitting a high of 2.5% in 2017. Energy and housing costs were the biggest contributors to inflation last year. A slackening of home price appreciation and relatively stable oil prices will keep inflation in check at about 2% for the next several years. (Note that we use Honolulu consumer price measures when calculating inflation-adjusted values for Kauai County, since inflation statistics are not available for the Neighbor Islands.)

Real estate, housing, and construction

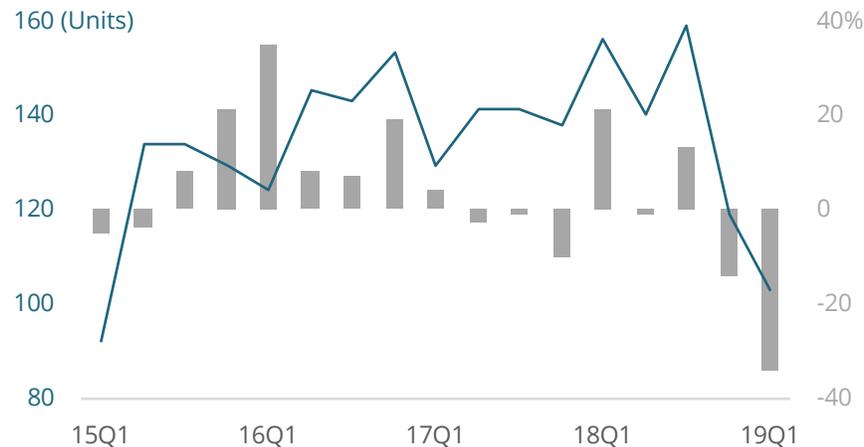
The building industry on the Garden Isle experienced a boom in 2015-2016, with jobs increasing by 15% in each year. Job growth in the industry eased to a still-solid 5% average pace over the past two years, considerably stronger than in other counties. The number of construction jobs now stands at nearly 2,000, its highest level since the last economic peak. The steady increase in jobs has been supported by rebuilding following last year's floods and a moderate stream of other construction projects, including public sector projects, residential development, and some retail.

Real estate sales were stable throughout 2018, but they have plummeted at the start of this year. In the first quarter of the year, sales of single-family residential units were down 35% and condominiums were down 25%. While April turned out quite a bit better, year-to-date home sales are down 19% in number and more than a third lower in dollar value. Single-family resale prices are running 10% lower than a year ago. Although there are still plenty of families looking for homes and properties available, buyers are pulling back from the market because of the lofty prices. In the rental market, conditions are exceptionally tight, and property managers report that they simply don't have available units to rent out. Vacation rentals are clearly an important factor. Real estate industry representatives report that buyers are increasingly looking at short-term rental income—which may top \$100,000 a year or more—as the primary driver of purchase decisions. As one put it, people are “securitizing their homes,” thinking of them as investments, rather than as places to live.

According to The Kauai County General Plan Update, the island has a shortage of about 1,400 homes. Policies to address this are resulting in a number of affordable housing projects. In Poipu, the 134-unit Koae development broke ground last year and is expected to be completed in 2020. Lima Ola, Kauai's largest affordable housing project, is in the process of acquiring permits and will eventually add 500 units to the housing stock. Pua Loke, a 60-unit project in Lihue, is projected to begin in 2020. Waimea Huakai Affordable Housing project, to be built on 6.5 acres of land behind the West Kauai Technology and Visitor Center, has filed its draft environmental assessment. The first phase will add 35 one, two and three bedroom units and the second phase will add an additional 32 single-family homes. Lastly,

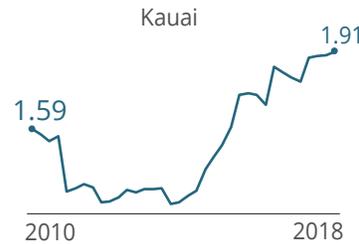
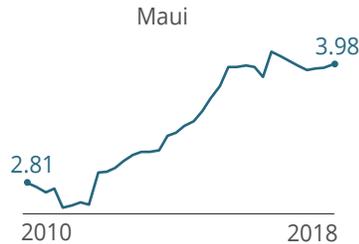
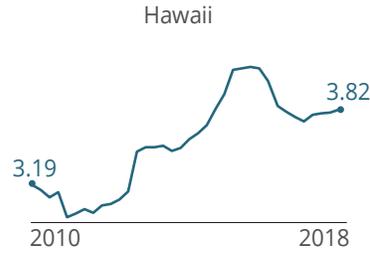
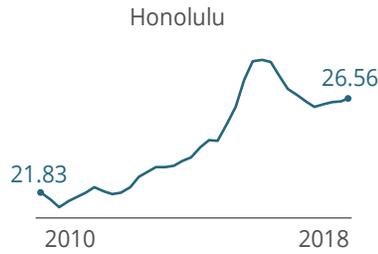
RESALES OF SINGLE FAMILY HOMES

Real estate sales plummeted at the start of this year.



CONSTRUCTION JOBS (THOUSANDS)

Construction job growth on Kauai in 2018 was stronger than in other counties.



Kauai's Habitat for Humanity's Eleele Iluna project has delivered 20 new homes in the Phase II A section of the project, and builders are now working on Phase II B.

A substantial volume of private home building will be needed in coming years to meet an anticipated demand for 9,000 new housing units by 2035. Barriers to development include long and uncertain entitlement processes, scarce construction labor and high building costs, and the need to build out water and sewer infrastructure. Strong offshore demand for homes also drives up market prices. An important concern is to prevent further suburban sprawl, instead prioritizing infill development and walkable communities defined by form based codes. Most recently, the Opportunity Zones included in the federal Tax Cuts and Jobs Act have piqued investor interest and may lead to further development on the Island's South Shore.

Repairs on the North Shore to infrastructure damaged by last year's historic rainfall and flooding have been the focal point of public construction. The State alone is spending up to \$80 million on highway, bridge, park, and related rebuilding. Over the longer run, the County has a significant backlog of highway work that will need to be done over the next ten years. The new GET surcharge for transportation will provide a base of funding for this work.

Agriculture and energy

Agriculture on Kauai includes large players such as coffee and the seed corn industry, as well as smaller farm operations. Kauai Coffee, the largest coffee producer in the US, grows coffee on 3,100 acres on Kauai and employs 140 workers, more during harvesting season. The Corteva Agriscience division of DowDuPont recently completed work on upgraded laboratory facilities in Kekaha. A total of \$12 million of investments are underway, as the company consolidates its Hawaii operations on the Garden Isle.

Plans by Ulupono Initiative to establish a dairy on Kauai has ended, after an eight-year struggle for regulatory approval. The dairy had been vigorously opposed by environmental and visitor industry interests because of concerns about threats to ground and ocean water conditions and unpleasant odor.

In the wake of the severe April flooding last year, the federal government made an agricultural disaster designation for Kauai County. The Hawaii Board of Agriculture also approved low-interest emergency agricultural loans of up to \$500,000 and microloans up to \$25,000 to ease the financial burden from the flooding. Recovery remains incomplete.

Agriculture faces significant challenges on Kauai, but also some emerging opportunities. While water is abundant, maintaining distribution systems is costly, and water use must be managed across various types of users. Ag startups often lack entrepreneurial skills and may not have ready access to the kinds of technologies that larger firms employ to boost productivity. Key areas of opportunity include the developing locally-sourced restaurant scene and tie-ins to tourism, which present potential for growth. To facilitate agriculture startups and existing enterprises, the County is hiring an agriculture specialist to help small farmers become more commercially viable and adopt new technology.

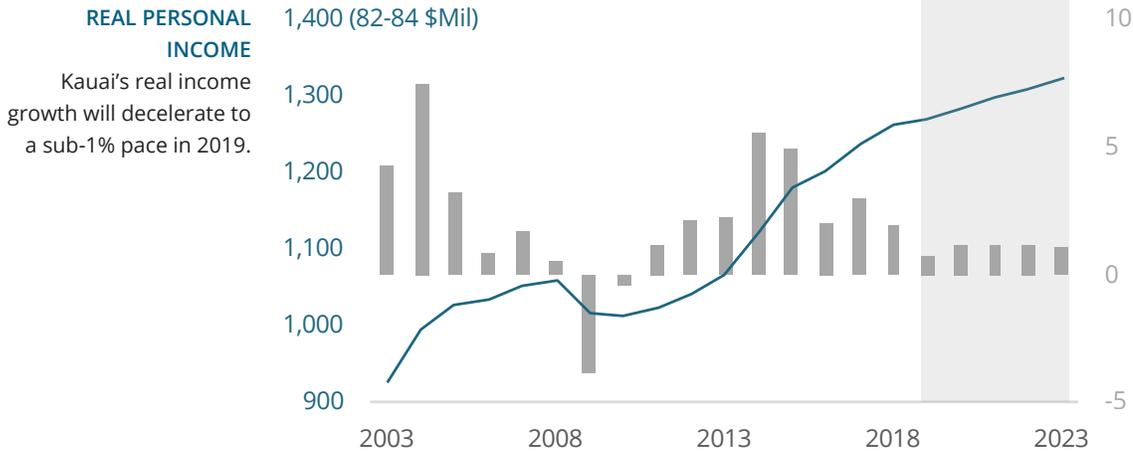
The Pacific Missile Range Facility (PMRF) at Barking Sands is the island's largest federal employer, contributing roughly \$142 million to Kauai's economy annually. Ongoing tensions with North Korea have stepped up US Missile Defense Agency investments in technology to protect against intermediate-range missiles. Tests of new missile interceptor systems continue at the Missile Range. While there has been on-again off-again pressure for PMRF to host active defense batteries, the Facility has been able to limit its focus to its traditional testing and training missions. PMRF has been investing heavily in renewable energy development, including a joint venture with KIUC, the island's electric utility cooperative, to install solar panels and battery storage. Other capital projects include air field upgrades, perimeter fences, and range operations complex upgrades to be completed over the next few years.

KIUC is well ahead of schedule to meet its renewable energy goals. The largest pending project is a hydro storage facility that will use solar energy to pump water uphill during the day, generating power by downward flow at night. Once land use permits are in place, the \$125 million project is expected to take five years to complete. At that point, KIUC will be able to meet 80-90 percent of its electricity demand from renewable sources. Renewable energy development is not without its critics, who cite environmental and view plain concerns.

A restrained outlook and familiar challenges

Last year looks to be a turning point for the Kauai economy, from robust growth to a more stable level of economic activity. The next few years are likely to sustain this more measured pace. Capacity pressures will contain tourism, and the available labor pool will restrain job growth in other sectors. Construction, which led all counties last year, will see much more modest gains, as well. Overall growth of the county's economy has converged to a more sustainable pace than we have seen in recent years.

While slower growth is likely a welcome respite for many on Kauai, there remain familiar—and fundamental—challenges. We have noted the perennial concerns about housing affordability and the underlying causes: high land costs, strong offshore demand, lengthy entitlement and permitting, high construction costs. Workforce limits are a constraint for home building but are not unique to the industry. The local labor force is small and lacks the skills needed in many industries. This has prompted a proactive response



both by County government and large employers, in particular PMRF, the island's largest high tech employer. Workforce problems affect firms, but also workers. The lack of sought-after skills holds back income and opportunity for Kauai's residents and contributes to social ills, including homelessness, substance abuse, and even teen suicide. Such concerns are driving Mayor Kawakami's focus on youth entrepreneurship and drug abuse prevention and rehabilitation. At the same time, some young people who acquire advanced education and skills leave the island because of limited job opportunities. While ongoing growth in health care and the increasing use of technology in areas such as agriculture and energy show promise, a shortage of high-skilled jobs will continue to be a challenge.

Despite recent softness, the pressure from robust visitor numbers will not disappear. As we have noted, there is now a broad consensus that the industry's role on Kauai must be more effectively managed. This will involve industry and government capital investments, but also "soft" investments in educating guests and local residents about how to best make use the many natural amenities that island provides. Even if the tourism presence is at record levels, it is encouraging that a vision for the future is now taking form.

MAJOR ECONOMIC INDICATOR SUMMARY
KAUAI COUNTY FORECAST

	2016	2017	2018	2019	2020	2021
Non-farm Payrolls (Thou)	30.6	31.4	31.8	32.0	32.2	32.5
% Change	2.2	2.4	1.3	0.7	0.8	0.7
Population (Thou)	71.8	72.2	72.2	72.3	72.5	72.7
% Change	0.5	0.5	0.1	0.1	0.3	0.4
Personal Income (Mil \$)	3,186.6	3,362.3	3,492.6	3,575.8	3,683.3	3,798.4
% Change	4.0	5.5	3.9	2.4	3.0	3.1
Inflation Rate, Honolulu MSA (%)	2.0	2.5	1.9	1.7	1.9	2.0
Real Personal Income (Mil 2018 \$)	3,330.9	3,427.6	3,492.6	3,514.8	3,554.5	3,593.3
% Change	2.0	2.9	1.9	0.6	1.1	1.1
Real Per Capita Income (Thou 2018 \$)	46.4	47.5	48.4	48.6	49.1	49.4
% Change	1.5	2.3	1.8	0.6	0.9	0.7
TOURISM SECTOR DETAIL						
Total Visitor Arrivals by Air (Thou)	1,187.3	1,280.0	1,377.8	1,386.7	1,421.6	1,449.1
% Change - Total Visitor Arrivals by Air	1.2	7.8	7.6	0.7	2.5	1.9
U.S. Visitors	976.5	1,044.6	1,133.3	1,137.7	1,169.7	1,192.1
% Change - U.S. Visitors	3.0	7.0	8.5	0.4	2.8	1.9
Japanese Visitors	23.0	26.5	26.3	27.5	27.3	27.3
% Change - Japanese Visitors	-10.6	15.3	-0.7	4.3	-0.5	0.1
Other Visitors	187.8	208.9	218.1	221.6	224.6	229.7
% Change - Other Visitors	-6.3	11.2	4.4	1.6	1.4	2.3
Avg. Length of Stay (Days)	7.6	7.5	7.5	7.3	7.3	7.2
Visitor Days (Thou)	9,080.2	9,590.5	10,267.8	10,188.3	10,340.5	10,499.6
% Change	1.9	5.6	7.1	-0.8	1.5	1.5
Occupancy Rate (%)	72.8	75.8	76.0	75.4	75.4	75.7

Note: Source is UHERO. Income figures for 2018 are UHERO estimates. Figures for 2019 - 2021 are forecasts.