





JULY 2020

IMPACT OF THE U.S. JONES ACT ON HAWAII



PREPARED BY:

Reeve & Associates and TZ Economics



CONTENTS

- I. Introduction
- II. Summary of Conclusions
- III. The Jones Act and Hawaii
- IV. The Market
- V. The Carriers and Competition

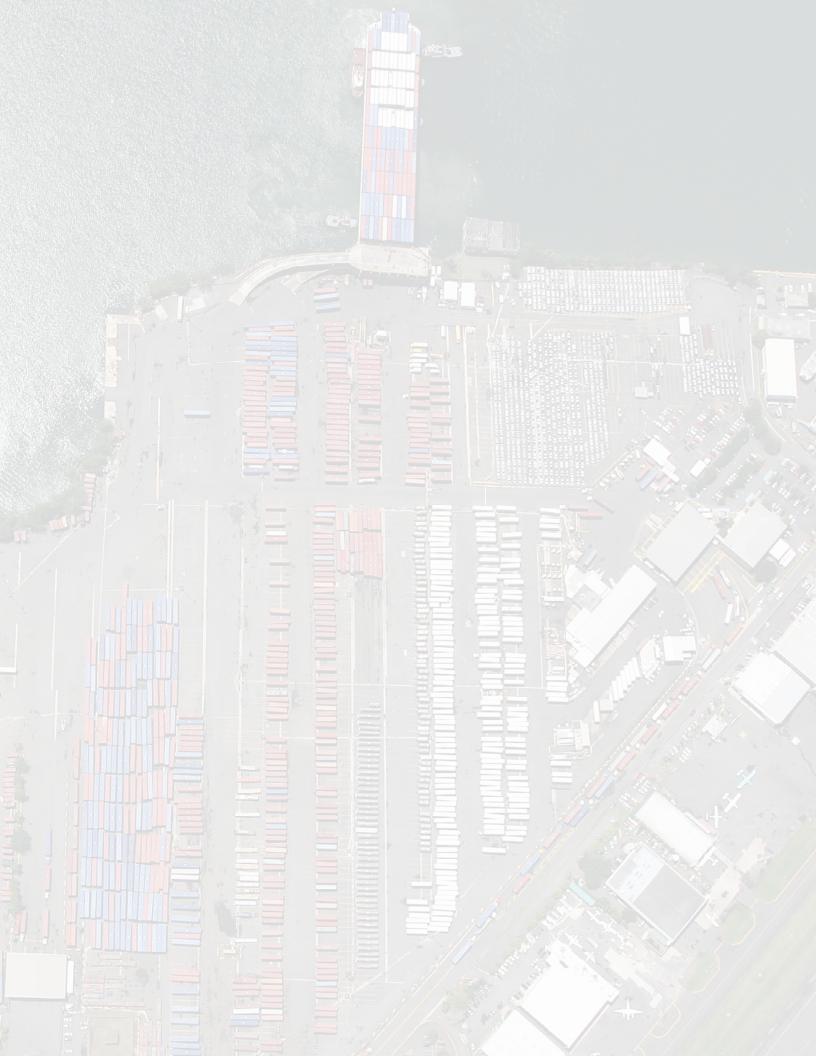
 Appendix

THE JONES ACT: THE FOUNDATION OF THE U.S. DOMESTIC MARITIME INDUSTRY

The Jones Act, Section 27 of the Merchant Marine Act of 1920 (46 U.S.C. § 55102), has long been regarded as a cornerstone of U.S. maritime policy.

The Jones Act governs the waterborne transportation of merchandise between two points in the United States, requiring it take place on vessels built in the United States, owned by U.S. citizens (at least 75 percent), and manned by U.S. citizen crews. This federal law, along with related cabotage laws, ensures that companies engaging in domestic trades or services compete equally and are fully subject to U.S. laws and regulations.

The Jones Act is pre-dated by numerous U.S. cabotage laws established at the founding of the nation under the First Congress of the United States. Named after Senator Wesley L. Jones of Washington, who was chairman of the Senate Commerce Committee at that time, the Jones Act continues to be upheld on principles of military preparedness, border and waterway security, and commercial vitality.



I. INTRODUCTION

Given the recent debate on the impact of the U.S. Jones Act on noncontiguous parts of the United States such as Hawaii, Alaska, and Puerto Rico, Reeve & Associates and TZ Economics analyzed the impact on Hawaii of the Jones Act. The Jones Act was enacted in 1920 and requires that all goods transported by water between U.S. ports, including those in the Continental United States (CONUS) and Hawaii, be carried on U.S.-flag vessels that are constructed in the United States, are owned by U.S. citizens, and are crewed by U.S. citizens and permanent residents.

The economists produced a fact-based analysis of recent developments in the CONUS/Hawaii liner shipping market in order to determine how and to what extent shipping services provided in that market impact the people and economy of Hawaii and, in particular, the cost of living in Hawaii. The researchers evaluated the cost and quality of service provided by the carriers operating between CONUS and Hawaii and the impact of those carriers' services on the price of goods shipped to Hawaii from CONUS.

Economists



Reeve & Associates is a management and economic consulting firm based in Yarmouthport, Massachusetts, that specializes in advising organizations in the public and private sectors on strategy development, market and economic analysis, organizational and operational performance improvement, supply-chain management, and the development of public policy involving maritime and intermodal transportation and logistics. The firm was founded in 1998 and has dedicated itself to serving clients engaged in domestic and international shipping and logistics by providing a high level of professional counsel based on senior-level experience in both consulting and the maritime transportation industry. The principal of the firm, John Reeve, has substantial experience in the Jones Act shipping markets, having advised several clients since the 1980s on business strategy in all of the noncontiguous Jones Act markets (Puerto Rico, Alaska, and Hawaii), as well as providing counsel on competitive conditions in those markets to the U.S. Department of Transportation and the Government Development Bank of Puerto Rico. Reeve received his BA from Princeton University and an MBA from the Tuck School at Dartmouth.

TZ E, C 10 N O, M I C, S'

Paul H. Brewbaker is the principal of TZ Economics, a Hawaii consultancy doing corporate work, development impact analysis, and litigation support. His background is in research on the Hawaii economy and financial risk analytics from a 25-year affiliation with Bank of Hawaii, concluding as its Chief Economist. The influence of living cost differentials in Hawaii's economy has been a subject of Brewbaker's research for years, as far back as the 1980's during his time as a commercial bank economist. He has consulted and advised on the impact of the Jones Act on Hawaii's economy for a decade, both with maritime companies and indirectly as part of cost of living concerns, in litigation support.

Brewbaker is a graduate of Stanford University and received his Ph.D. from the University of Hawaii, both in economics. He also did graduate work at the University of Wisconsin, taught at its Madison and Milwaukee campuses, and lectures at the University of Hawaii. He is a member of the American Economic Association, American Finance Association, and the National Association for Business Economics from which he holds a Certified Business Economist designation. Brewbaker is a long-time director of the Hawaii Economic Association.

II. SUMMARY OF CONCLUSIONS

A comprehensive online survey of 200 consumer goods covering groceries, durable and household goods, clothing, building materials and hardware, and automobiles as sold by major retailers such as Costco, Home Depot, Target, and Walmart stores in Honolulu and Los Angeles on the same day and for exactly the same items as well as by automobile dealerships¹ indicates that the retail prices of the goods surveyed for major retailers in Hawaii are only 0.5 percent higher than for the same goods sold on the mainland, and there are many factors beyond the Jones Act for those higher prices.

Prices in the majority of the goods surveyed (142 out of 200 items) were precisely the same in stores in Hawaii and California. Of the 58 items that were priced differently, 49 were priced higher in Hawaii and 9 had lower prices in Hawaii. In the case of 25 of the 49 items that were priced higher by a retailer in Hawaii, another retailer offered the same item at the same price as on the mainland or at an even lower price in Hawaii.

The level of freight rates charged by carriers in the CONUS/Hawaii trade have essentially remained flat over the last decade (declining in real terms), while a benchmark of U.S. intercity truckload rates has increased by 28 percent.

- Recent studies and articles have questioned the value of the Jones Act to Hawaii. Essentially all of their claims of negative impact are not supported by the facts and ignore the clear examples of positive impact that the Jones Act provides. Particular weaknesses in these studies and articles that seriously undermine their validity include the following:
 - While Hawaii does have the one of the highest costs of living in the U.S., that cost is primarily driven by housing expenses and other factors such as fuels and utilities, and medical care, not the type of consumer goods carried to Hawaii by Jones Act carriers.
 - Only around a third of the total costs of a Jones Act carrier moving freight between CONUS and Hawaii is affected by the Jones Act (crew and vessel capital costs). If the Jones Act were

to be waived for Hawaii, the costs of any foreign-flag vessel operated in that U.S. domestic trade would rise substantially as it would have to comply with U.S. tax, labor, and employee protection laws apart from the Jones Act that would virtually negate any cost advantage provided by foreign registry.

- The Jones Act provides significant benefits to the people of Hawaii in terms of employment and economic impact contributing 13,000 jobs (second among all states in per capita jobs related to the domestic maritime industry) that earn \$787 million annually in worker income. The Jones Act industry provides an overall annual contribution to the Hawaii economy of \$3.3 billion.²
- The United States has cabotage restrictions similar to the Jones Act that apply to companies providing services within the country in the cases of the airline, railroad, and trucking industries. Neither the Jones Act nor any other law prohibits or penalizes foreign flag vessels from bringing foreign-sourced goods to Hawaii. In 2017, 61.3 percent of all ocean cargo freight as measured in tons (excluding intrastate traffic) that moved through Hawaii ports was carried by foreign flag vessels operating in international trade.³
- Hawaii is subject to the same U.S. customs regulations and tariffs that are applicable to all other ports on the U.S. mainland and in Alaska and Puerto Rico.
- The CONUS/Hawaii domestic carriers offer dedicated ocean services from the U.S. Pacific Coast that provide a high level of service frequency and rapid transit times.
- The total estimated CONUS/Hawaii market in 2019 of around 593,000 TEU⁴ was four percent less than its level in 2008. The trade is also heavily imbalanced with westbound liner service cargo in 2019 estimated at around 528,000 TEU being eight times greater than the estimated eastbound shipments of around 65,500 TEU to CONUS.

¹ Kelly Blue Book data on car and truck prices for 2020 models sold in Hawaii and California was used for automobile price comparisons as online pricing data similar to that used for the major retailers with locations in both Hawaii and California is not available for car dealerships.

² Contributions of the Jones Act Shipping Industry to the U.S. Economy prepared by PricewaterhouseCoopers for Transportation Institute (January 2019).

Includes containerized freight, vehicles, breakbulk, and liquid and dry bulk cargoes.

⁴ Twenty-Foot Equivalent Unit.

- Shipments from the U.S. mainland to Hawaii consist of a variety of consumer goods that are critical to the welfare of the people of Hawaii and that play a key role in their daily lives. The much smaller outbound trade from Hawaii still provides the state with a key conduit for exports and the shipment of personal goods.
- Three carriers now serve the CONUS/Hawaii shipping market with a variety of vessel and equipment types that are custom-designed to meet the needs of shippers in the trade. These U.S. carriers serving Hawaii have invested over \$2 billion in new assets and resources in recent years. Five U.S.-built state-of-the-art container, roll-on/roll-off (RoRo), and combination container and RoRo (ConRo) vessels have already been delivered and three more will be introduced in 2020. All of these newbuildings are highly fuel-efficient, environmentally friendly and comply
- with the International Maritime Organization's (IMO) requirements in 2020 for reduced sulphur emissions from vessels' burning of fuel oils. In addition, Matson has improved its dedicated Honolulu terminal with the addition of three new high-capacity gantry cranes and upgraded its inter-islands barge feeder services.
- The Jones Act carriers play a critical role in support of U.S. national security. Carriers provide a reserve force of well-trained seafarers, who in times of national emergency, like the 9/11 attacks, manned vessels that evacuated more than 500,000 people from Manhattan. Many of these carriers were also instrumental to operations in Iraq and Afghanistan. Additionally, Jones Act carriers support the nation's strategic capabilities in ship construction and repair.

III. THE JONES ACT AND HAWAII

The United States Jones Act

Section 27 of the Merchant Marine Act of 1920, which is commonly known as the "Jones Act" is a U.S. federal statute that regulates maritime commerce in U.S. waters and between U.S. ports. The act was introduced by Senator Wesley Jones and deals with "cabotage" or the movement of goods within a country's borders. The Jones Act requires that all goods transported by water between U.S. ports be carried on U.S.-flag vessels that are constructed in the United States, that are owned by U.S. citizens, and that are crewed by U.S. citizens and U.S. permanent residents. The act has jurisdiction over traffic on U.S. inland waterways and coastal shipments, as well as shipments between CONUS and noncontiguous states and territories, such as Alaska, Hawaii, and Puerto Rico.⁵ The Jones Act also covers other maritime industries, including passenger service, fisheries, dredging, towing, and offshore energy support.

The United States has cabotage regulations similar to the Jones Act that apply to companies providing transportation services within the country in the case of the airline, railroad, and trucking industries. The Jones Act has no impact on the nation's foreign trade and shipping services, including that of Hawaii. Foreign vessels carrying foreign trade regularly call at Hawaii ports. Of the total marine cargo traffic including liner and bulk shipments as measured in tons that moved through Hawaii ports in 2017 (excluding intrastate traffic), 61.3 percent had either foreign origins or destinations. Hawaii is also subject to the same U.S. customs regulations and tariffs that are applicable to all other ports on the mainland and in Alaska and Puerto Rico.

Critics of the Jones Act typically claim that it adds to the cost of living. Typically, these critics claim that the Jones Act adds to the cost of living in noncontiguous parts of the United States such as Hawaii, Alaska, and Puerto Rico that are served by U.S. vessels operating within the requirements of the Jones Act. This argument is primarily based on two factors: That U.S. seafarers are paid at a level similar to their compatriots in the U.S. economy who possess a high level of training for the specialized skills required to operate a modern containership or roll-on/roll-off vessel – however, these U.S. wage levels are higher than those of their foreign (primarily Asian) counterparts on vessels of foreign registry (an issue similar to that faced by U.S.-based manufacturers); and...

That U.S.-built ships are more expensive than comparable vessels built in current major shipbuilding countries such as China and South Korea.

These critics then extrapolate those facts (that are not contested) to conclude that the Jones Act must have a major negative impact on the cost of goods sold in markets such as Hawaii that depend on the ocean shipping services provided by U.S. seafarers and U.S.-built ships to supply such goods from the mainland.

The argument would appear to have merit in its simplicity. But what these critics' claims lack is reference to the facts of the actual price of goods as sold in Hawaii that are typically transported on Jones Act vessels and their price on the mainland.

⁵ Shipments between Guam, American Samoa, and other domestic ports are not subject to the Jones Act's U.S.-build requirement but still must comply with the U.S. crew and U.S. ownership requirements.

⁶ U.S. Army Corps of Engineers, *Waterborne Commerce Statistics*, Tonnage data.

Comparison of Consumer Goods Prices between Hawaii and the Mainland

A recent online survey⁷ of a representative sample of the listed prices of the same 200 consumer goods as sold in Hawaii and California on the same date by the same major retailer (Costco, Home Depot, Target, and Walmart were included in the survey⁸) discovered that the prices in the majority of instances (143 out of the 200 items surveyed) were precisely the same in the retailers' stores in Hawaii and California, as described in Exhibit III-1.

EXHIBIT III-I RESULTS OF A SURVEY OF REPRESENTATIVE COMPARATIVE PRICES OF SELECTED CONSUMER GOODS IN HAWAII (HONOLULU) AND CALIFORNIA (LOS ANGELES) (APRIL 2020)

	NUMBER OF ITEMS	NUMBER HIGHER PRICES	NUMBER LOWER PRICES	
CONSUMER GOODS CATEGORY	SURVEYED	IN HI	IN HI	OVERALL PRICE DIFFERENCE
GROCERIES	104	43	9	2.40%
DURABLE & HOUSEHOLD GOODS	45	2	0	0.01%
CLOTHING	26	0	0	0.00%
BUILDING MATERIALS & HARDWARE	15	3	0	0.15%
AUTOMOBILES	10	0	0	0.00%
	200	48	9	0.51%

Average of the five categories price differentials, not of the numeric data as Automobiles would heavily influence the result due to their much higher relative prices.

Source: Reeve & Associates' and TZ Economics' online surveys and Kelly Blue Book – Refer to the Appendix for underlying detailed data.

Interestingly, nine of the 57 goods that were priced differently between Hawaii and California were actually priced lower in Hawaii. The biggest price differential occurred in groceries (2.4 percent). The price differentials in the four other consumer goods categories were insignificant to nonexistent. Of further note is the fact that in the case of 25 of the 48 items that were priced higher by a retailer in Hawaii, another retailer offered the same item at the same price as on the mainland or at an even lower price in Hawaii. ⁹

Overall, averaging the differentials for the five consumer goods categories, the survey discovered that the sample of consumer goods prices in April 2020 in Hawaii were half of one percent (0.5 percent) higher than those of the very same goods in California at the same time. Consequently, this scan of consumer goods prices in Honolulu and Los Angeles is virtually nill. Moreover, there are many other factors that impact the price of goods in Hawaii beyond the lones Act.

A recent analysis of the Jones Act is William W. Olney's paper on Cabotage Sabotage? The Curious Case of the Jones Act. 10 Olney makes the point that the decline in U.S. shipbuilding capacity after World War II is a major factor in demonstrating the failure of the Jones Act to benefit the U.S. economy. It is indeed true that the U.S. after WWII was the major shipbuilding nation in the world and that its position has slipped considerably since then. However, it needs to be noted that as a result of the United States' huge shipbuilding programs during the war (producing Victory and Liberty ships that were eminently suitable for commercial shipping use after the war), there was massive overcapacity in global postwar shipping tonnage. Consequently, commercial shipbuilding was not an attractive industry for postwar U.S. investors.

⁷ Survey was conducted between April 20 and 27, 2020. Specific commodity comparisons were done on the same date and time.

The consumer goods surveyed include the Top Ten automobiles sold in Hawaii in 2019 as listed in the Kelly Blue Book data on car and truck prices for 2020 models sold in Hawaii and California. This source was utilized for Automobile price comparisons as online pricing data similar to that used for the major retailers with locations in both Hawaii and California is not available for car dealerships.

⁹ Please see the Appendix for details.

¹⁰ William W. Olney, Cabotage Sabotage? The Curious Case of the Jones Act, UHero, Economic Research Organization at the University of Hawaii, December 2, 2019.

By the 1960's, Japanese reindustrialization led by the Ministry of International Trade and Industry (MITI), had identified shipbuilding as a key element in Japan's industrial strategy to grow heavy industry due to shipbuilding's large demand for steel and fabricated products such as marine engines. Japan vaulted to the forefront of global shipbuilding, soon thereafter to be followed by South Korea, and then China with their similar industrialization programs. None of these events on the global stage had anything to do with the Jones Act.

Olney also theorizes that the Jones Act has been a factor in reducing the relative importance of domestic waterborne commerce by shifting goods to other forms of transport (i.e. trucks and trains) or to overseas sources.11 Olney's argument appears to overlook the impact of economic globalization that saw economies such as Japan, South Korea, and China as well as many others become major suppliers of manufactured goods to the United States over the last 50 years due to their lower wage costs and competitive productivity levels that thereby supplanted U.S. manufactured goods producers. Again, the Jones Act had nothing to do with the foreign-based low wages and improved productivity that led to the increasing reliance of the United States on a global range of suppliers. And, yes, trucks and trains that once primarily moved U.S.-sourced goods, now move the large volumes of imported goods emanating from these global suppliers.

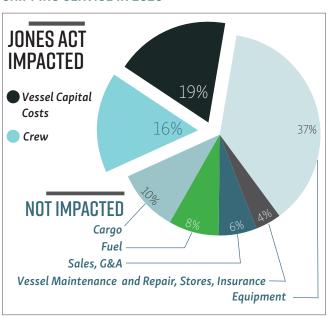
Similar claims about the Jones Act are made by the Grass Root Institute of Hawaii – that it raises costs to consumers and has weakened the U.S. shipbuilding industry. As shown in Exhibit III-1 above, there is scant evidence that consumer goods prices in Hawaii are negatively impacted by the Jones Act when you choose to look at those prices on a micro basis. Furthermore, the heavy industrialization programs of Asian nations such as Japan, South Korea, and China also had nothing to do with the Jones Act.

The Total Cost of CONUS/Hawaii Liner Shipping

What is telling in the gap between the critics' claims on alleged damage from the Jones Act and the facts on the ground is that the critics typically do not understand the total value chain and scope of the intermodal liner shipping services provided by the Jones Act carriers operating between CONUS and Hawaii, as described in Exhibit III-2. While crew and vessel capital costs do make up a significant portion of the

overall operating costs of a Jones Act liner service operator today (currently estimated at around 35 percent when combined), the large majority of the expenses of moving cargo between CONUS and Hawaii are completely unaffected by the Jones Act. The largest portion of these expenses (Cargo) is related to the loading and discharging of cargo in U.S. ports and its movement by truck and/or rail overland from mainland origin to ultimate destinations in either Hawaii or the mainland.

■ EXHIBIT III-2 ■ COST STRUCTURE OF A JONES ACT INTERMODAL LINER SHIPPING SERVICE IN 2020



Sources: U.S. Department of Transportation, Maritime Administration, Comparison of U.S. and Foreign-Flag Operating Costs, September 2011; OOIL Annual Report, 2019; Reeve & Associates' analysis of carrier data.

It should be noted that the portion of the estimated Jones Act operator's costs composed of vessel capital costs has increased in recent years as several of the leading U.S. operators of Jones Act services have introduced brand new U.S.-built state-of-the-art container and roll-on/roll-off (RoRo) vessels into their operations. The two leading carriers in the CONUS/Hawaii market, Matson and Pasha Hawaii are prime examples of U.S. carriers that have made such investments in modernizing their fleets.¹²

Of course, the operator of a foreign-flag vessel moving cargo between CONUS and Hawaii in the event that the Jones Act was to be waived would still have crew and vessel capital costs. Such an operator, according to the U.S. Maritime Administration, would be required to comply with "all the work rules and manning requirements in the U.S. that affect labor

¹¹ Olney, page 26.

¹² Refer to Section V of this report for more information on carrier fleets and investment in new vessels.

productivity and crewing flexibility that result in overall crewing costs that contribute approximately \$12,000 to \$15,000 per day to total U.S.-flag operating costs."¹³

A 2015 article in the Journal of Maritime Law & Commerce also supports the finding that a foreign-flag vessel's costs would rise substantially if operated in U.S. domestic trade in terms of

U.S. tax, labor, and employee protection laws. 14 Consequently, it may well be concluded that compliance with U.S. law and domestic commerce regulations would substantially diminish if not totally eliminate any foreign-flag vessel operating cost advantage if the Jones Act were to be waived in the case of the CONUS/Hawaii trade.

The Cost of Living in Hawaii

It is understandable that the cost of living in Hawaii is the focus of much concern and debate. Hawaii consistently ranks at or near the top of U.S. states in terms of the cost of living, as shown in the following exhibit.

EXHIBIT III-3 STATE REGIONAL PRICE PARITIES (RPP) LIVING COST DIFFERENTIALS FOR THE TOP 20 U.S. STATES AND THE DISTRICT OF COLUMBIA (PERCENT OF U.S. AVERAGE)

RANK	GEO NAME	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	UNITED STATES	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1	HAWAII	118.1	117.1	117.2	116.9	117.8	118.3	118.4	119.2	118.9	118.8	118.1
2	NEW YORK	115.1	115.3	115.2	115.2	115.3	115.2	115.7	115.8	116.4	116.0	116.4
3	DISTRICT OF COLUMBIA	115.6	116.4	118.2	117.8	117.7	117.0	118.2	116.8	114.6	116.0	116.1
4	CALIFORNIA	113.1	112.9	113.6	113.4	112.9	113.1	113.7	113.8	114.7	115.0	115.4
5	NEW JERSEY	112.9	113.3	114.1	114.6	114.4	113.4	113.8	113.4	114.1	113.6	115.2
6	MASSACHUSETTS	108.3	108.0	108.0	107.8	106.6	106.7	107.3	107.6	109.2	109.0	109.7
7	MARYLAND	110.3	111.3	111.0	110.9	110.1	109.9	110.2	109.6	109.0	109.0	108.4
8	WASHINGTON	103.2	103.7	103.0	102.9	103.5	104.2	104.9	105.2	106.1	106.8	107.8
9	CONNECTICUT	110.7	110.4	109.4	109.0	109.2	108.5	108.6	108.5	107.3	106.8	106.1
10	NEW HAMPSHIRE	107.2	106.4	106.5	105.3	105.6	105.4	105.7	105.7	106.8	106.5	106.0
11	ALASKA	106.9	106.9	105.5	105.1	105.4	104.9	106.3	105.5	105.7	105.0	104.8
12	VERMONT	100.4	100.6	99.5	99.9	100.8	100.9	102.5	102.7	102.6	103.2	103.0
13	VIRGINIA	102.8	103.5	103.1	103.0	103.0	102.8	102.7	102.6	102.2	102.0	102.0
14	COLORADO	100.4	101.1	100.9	101.4	101.1	102.1	102.0	102.3	101.7	102.2	101.9
15	OREGON	98.3	98.9	98.5	98.5	98.7	98.9	98.8	98.5	100.5	100.5	101.1
16	FLORIDA	100.8	100.0	99.1	99.2	99.1	99.2	99.4	99.5	100.1	100.2	100.6
17	MAINE	98.0	98.1	96.8	97.4	98.4	98.5	98.0	99.1	99.4	99.0	100.0
18	RHODE ISLAND	100.2	100.0	99.1	99.4	98.8	98.8	99.8	99.9	100.6	99.2	99.3
19	DELAWARE	102.0	103.2	102.8	101.8	101.2	100.6	101.1	100.0	100.0	100.0	98.8
20	ILLINOIS	100.2	100.9	100.9	101.1	100.7	99.7	99.3	99.0	98.7	98.5	98.1

Source: U.S. Bureau of Economic Analysis (BEA) (https://www.bea.gov/data/prices-inflation/regional-price-parities-state-and-metro-area). Released May 18, 2020 (use interactive tables)

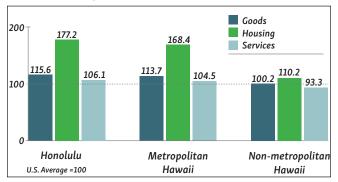
It is important to understand the real factors contributing to this differential. Exhibit III-4 peels apart the key drivers behind Hawaii's high cost of living differential with the U.S. average. The real culprit is the high cost of housing in Hawaii. Goods and non-housing services are closer to the national averages.

US Maritime Administration, Comparison of U.S. and Foreign-Flag Operating Costs (September 2011). At https://www.marad.dot. gov/search/ Comparison of US and foreign-flag operating costs/.

S. Beason, D. Conner, N. Milonas, & M. Ruge, Myth and Conjecture? The "Cost" of the Jones Act, Journal of Maritime Law & Commerce, 46:1 (January 2015).

Admittedly, the fact that many goods require ocean transport to reach Hawaii must be a cost factor, although the major retailer price survey of 200 commodities including groceries, durable and household goods, clothing, building materials and hardware, and automobiles discussed earlier indicates that the cost of ocean transport is not significant in the determination of these retail prices in Hawaii.

■ EXHIBIT III-4 ■ KEY FACTORS BEHIND THE COST OF LIVING DIFFERENTIALS IN HAWAII

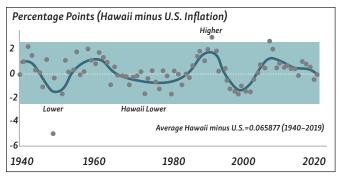


Metropolitan Hawaii is Honolulu and Maui County Nonmetropolitan Hawaii is Hawaii County and Kauai County

Source: U.S. Bureau of Economic Analysis (BEA) (https://www.bea.gov/data/prices-inflation/regional-price-parities-state-and-metro-area)

There is also no evidence to indicate that Hawaii has experienced a level of consumer price inflation that is in excess of that experienced on the U.S. mainland. Longstanding evidence on inflation and living costs in Hawaii, relative to the U.S. mainland (the customary benchmark), suggests that neither measure in Hawaii has systematically deviated from the national norm as shown in Exhibit III-5. Hawaii inflation, measured by the consumer price index, from 1940-2019 differed from U.S. inflation by 0.07 percentage points – essentially by zero.

■ EXHIBIT III-5 ■ HAWAII INFLATION VERSUS THE U.S. TOTAL



Source: U.S. Bureau of Labor Statistics (https://data.bls.gov/cgi-bin/surveymost?r9).

The deviation from U.S. inflation is consistent with contemporaneous Hawaii economic conditions: War (higher inflation) and Demobilization (lower) in the 1940s; a late-territorial economic boom (higher) in the 1950; Catch-A-Wave liberalized development (lower) in the 1960s and early-1970s; ¹⁵ land use and environmental restrictions and the investment Japan Bubble (higher) in the 1980s; the bust of the 1990s; ¹⁶ the Sub-Prime Bubble (higher) in the 2000s; and below national-average real GDP growth during the last decade.

Urban Hawaii consumer price movements reveal that most items transported by means of ocean liner service carriage, such as merchandise and commodities, have experienced lower inflation rates than average in Hawaii. Urban Hawaii inflation, 1984-2019, has subsided from five percent or more to less than two percent per annum, averaging 2.9 percent p.a. The primary contributors to increases in Hawaii's cost of living since the 1980s are the following:

- Shelter costs: 3.4 percent p.a.
- Fuels and utilities: 3.8 percent p.a.
- Medical care costs: 3.9 percent p.a.

Due to compounding, these higher inflation rates disproportionately contribute to higher Hawaii living costs. As illustrated in Exhibit III-6, many containerized cargo items experienced the lowest Hawaii inflation rates, such as:

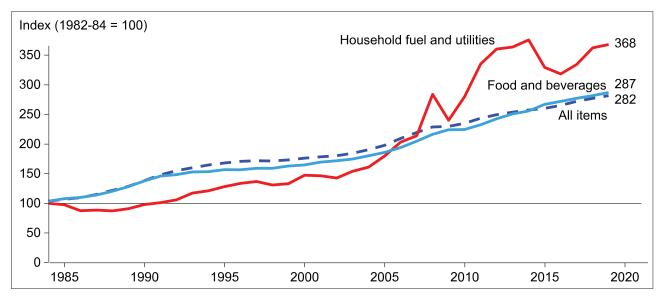
- Non-food commodities: 1.3 percent p.a.
- Household furnishings: 1.1 percent p.a.
- Apparel: 0.4 percent p.a.

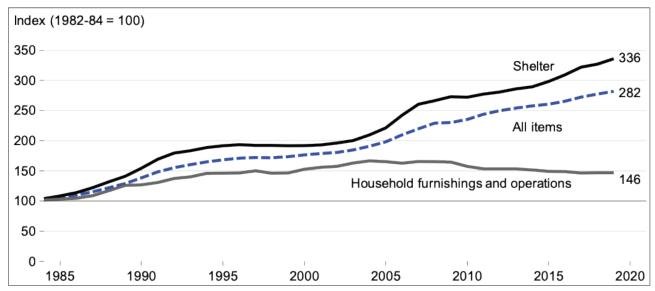
In fact, Jones Act ocean transportation has contributed to lower living costs in Hawaii by passing on the benefits of transportation technological progress to more slowly rising consumer price groups.

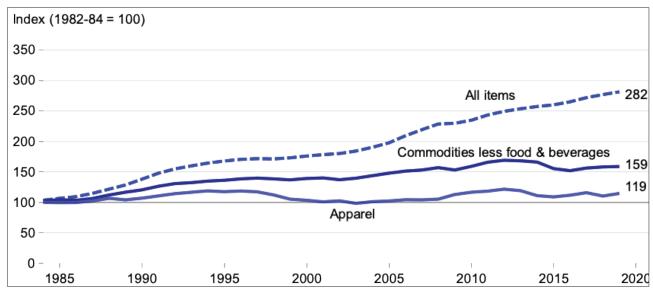
Tom Coffman (1972), Catch A Wave: A Case Study of Hawaii's New Politics, CreateSpace Independent Publishing Platform (September 12, 2010 reprint).

¹⁶ Christopher Grandy (2002), Hawai'i Becalmed: Economic Lessons of the 1990s, University of Hawaii Press.

■ EXHIBIT III-6 ■ SELECTED URBAN HAWAII CONSUMER PRICE INDEX GROUP INFLATION RATES





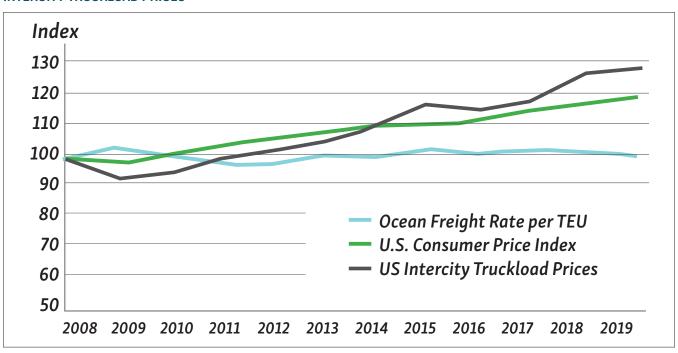


 $Sources: \ U.S.\ Bureau\ of\ Labor\ Statistics\ (https://data.bls.gov/PDQWeb/cu),\ Hawaii\ DBEDT\ (http://dbedt.hawaii.gov/economic/databook/data_book_time_series/)$

A key factor contributing to relatively low inflation in the Hawaii economy in recent years has been the level of ocean freight rates as charged for the movement of cargo between CONUS and Hawaii. Reeve & Associates collected on a confidential basis from carrier data their actual revenue per TEU in the trade over the 2008 to 2019 period. The revenue-per-container information is only for port-to-port traffic — in order to clearly define ocean shipping costs in context of the Jones Act. The port-to-port ocean freight rates also do not include any bunker fuel surcharges that vary with the price of fuel as purchased by the carriers. The carrier revenue information has been converted into index form in order to protect carrier confidentiality while still providing a clear picture of the trend in price levels.

As shown in Exhibit III-7, freight rates in the CONUS/Hawaii trade have essentially remained flat (declining in real terms) over the 2008-2019 period while benchmarks such as overall U.S. inflation and U.S. intercity truckload prices have increased substantially. It also should be pointed out that the CONUS/Hawaii ocean freight rates include State of Hawaii Department of Transportation Harbors Division assessments for wharfage charges (revenue passed through the ocean carrier to the port authority) for port/terminal improvements in Honolulu that increased wharfage charges by 50 percent between February 2017 and July 2019.

■ EXHIBIT III-7 ■ HISTORICAL TREND IN CONUS/HAWAII OCEAN FREIGHT RATES VERSUS U.S. CONSUMER PRICE INDEX AND INTERCITY TRUCKLOAD PRICES



Historical Trend in CONUS/Hawaii Ocean Freight Rates versus U.S. Consumer Price Index and Intercity Truckload Prices.

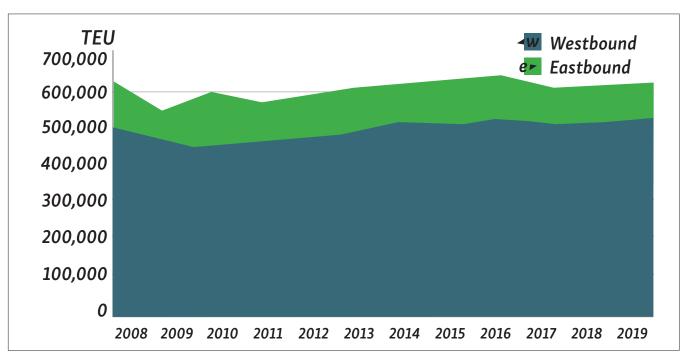
The trend in CONUS/Hawaii ocean freight rates is a clear indicator of strong competition in the Jones Act shipping marketplace — a fact that will be explored in more detail later in this report.

IV. THE MARKET

Overall Growth Trends and Traffic Flows

Detailed information on the volume of traffic moving in liner services between CONUS and Hawaii is limited.¹⁷ We have developed an eleven year history (avoiding a starting point in 2009 as that was heavily impacted by the 2008-2009 recession) based on U.S. government statistics and information from the leading carrier in the trade, as described in the exhibit below. Despite the recovery from the 2008-2009 recession levels, the total estimated CONUS/Hawaii market in 2019 of around 593,000 TEU was four percent less than its level in 2008. The trade is also heavily imbalanced with westbound liner service cargo in 2019 estimated at around 528,000 TEU being eight times greater than the estimated eastbound shipments of around 65,500 TEU to CONUS.

■ EXHIBIT IV-1 ■ CONUS/HAWAII ESTIMATED LINER SHIPPING MARKET 2008-2019

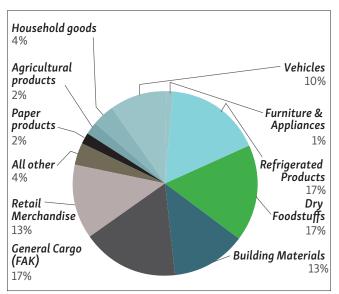


Sources: U.S. Army Corps of Engineers Waterborne Commerce Statistics, Matson carrier data, and Reeve & Associates analysis. The market estimates include those for vehicles and breakbulk cargo as well as containerized cargo that are carried by vessels and barges engaged in regularly scheduled liner service.

The U.S. Army Corps of Engineers does produce "Waterborne Commerce Statistics" on cargo traffic between Hawaii and the Continental U.S. However, this data is on occasion at odds with carriers' actual experience. The market estimate above is based on a combination of sources including the Waterborne Commerce Statistics, ocean carrier data, and Reeve & Associates' interpretation.

The Jones Act carriers in the CONUS/Hawaii trade provide an essential supply chain pipeline for the transport of consumer goods and industrial items between the U.S. mainland and Hawaii as shown in the exhibits IV-2 and IV-3.

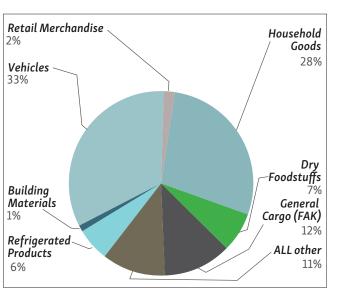
EXHIBIT IV-2 CARGO COMPOSITION OF THE WESTBOUND CONUS/HAWAII TRADE



Source: Matson cargo liftings in 2015, most recent data available. Includes both containerized and RoRo cargo. Data is based on TEU's. Vehicles carried in RoRo mode have been converted to TEU's at the ratio of 1.5 vehicles per TEU.

The primary goods moving in the much smaller eastbound trade to the U.S. mainland consist of a high proportion of personal effects (vehicles and household goods) likely attached to residents such as military families returning to the mainland.

EXHIBIT IV-3 CARGO COMPOSITION OF THE EASTBOUND CONUS/HAWAII TRADE



Source: Matson cargo liftings in 2015, most recent data available. Includes both containerized and RoRo cargo. Data is based on TEU's. Vehicles carried in RoRo mode have been converted to TEU's at the ratio of 1.5 vehicles per TEU.

The U.S. Census Bureau calculates that the resident population of Hawaii in 2019 was 1,415,872 persons, a 4.1 percent increase over the state's 2010 population of 1,360,301. Around 9.6 percent of Hawaii's population is composed of military personnel and their families that typically stay on the islands for tours of two to three years in duration. ¹⁸ The resident population of Hawaii is supplemented by a large number of visitors that totaled just under 9.9 million in 2018. ¹⁹ Hawaii visitors' average length of stay on the islands is 8.9 days, so the number of visitors to Hawaii effectively increases the state's population by 17 percent. ²⁰

¹⁸ Hawaii Department of Business, Economic Development, and Tourism (HDBEDT).

¹⁹ Hawaii Tourism Authority, 2018 Annual Visitor Research Report.

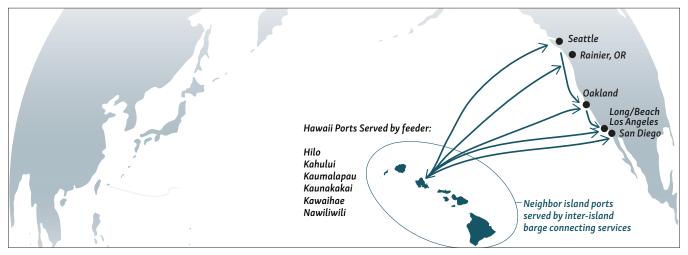
²⁰ Hawaii Tourism Authority.

V. THE CARRIERS AND COMPETITION

Three Jones Carriers Currently Serve the CONUS/Hawaii Trade with High Frequency

Regularly scheduled liner shipping services between the United States mainland and Hawaii are currently provided by three companies: Matson and Pasha Hawaii, operators of large fleets of container and RoRo ships that carry a variety of containerized and vehicular traffic, and Aloha Marine Lines²¹ who operate specialized flat deck barges that are able to carry an assortment of cargoes such as building materials and very large equipment that cannot fit into containers as well as containerized goods and materials. In 2020, after completion of this study, Aloha Marine Lines consolidated with Sause Bros. which resulted in no reduction in capacity or frequency of service. These carriers connect Hawaii with a range of U.S. Pacific Coast ports via the primary Hawaii hub port of Honolulu that then connects to the rest of the Hawaiian Islands through interisland feeder vessels, as described in the exhibit V-I.

■ EXHIBIT V-1 ■ CONUS/HAWAII LINER SHIPPING SERVICES PORT COVERAGE IN 2020



Sources: Published carrier data - Sause Bros. sold Trans-Pacific hailing assets to AML, with AML continuing to run that same capacity. No service has been lost.

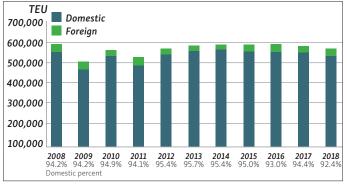
At the time of this study, four carriers served the CONUS/Hawaii trade. Since then, Sause Bros. has consolidated with Aloha Marine Lines (AML) with no reduction in capacity or frequency of service.

■ EXHIBIT V-2 ■ PROFILE OF LINER SHIPPING SERVICES IN THE CONUS/HAWAII TRADE IN 2020

	TYPE OF VESSEL	EL VESSELS IN HAWAII WEEEKLY CAPACITY WEEKLY SERVICE		WEEKIN SEDVICE	PORTS DIREC	CTLY SERVED
CARRIER	OPERATED	SERVICE	(TEUS)	FREQUENCY	CONUS	HAWAII
MATSON	Container & ConRo	10	WB: 9,333 EB: 6775	WB: 3 EB: 2	Seattle, Oakland, Los Angeles	Honolulu
PASHA HAWAII	RoRo ConRo & Container	6	6,669	2	Los Angeles, San Diego, San Francisco	Honolulu
ALOHA Marine Lines	Tug-barges	2	425	0.5	Seattle	Honolulu
SAUSE BROS.	Tug-barges	2	167	0.33	Rainier, OR	Barbers Point, Oahu
TOTAL		20	WB: 16,594 EB: 14,036	WB: 5.83 EB: 4.83		

Sources: Published carrier data - taken at time of study prior to consolidation of AML and Sause Bros.

■ EXHIBIT V-3 ■ DOMESTIC VERSUS FOREIGN ORIGINS AND DESTINATIONS OF HONOLULU LOADED CONTAINER TRAFFIC



Sources: U.S. Army Corps of Engineers Waterborne Commerce Statistics (WCS), Matson, and Reeve & Associates' analysis. Cargo volumes include only containerized cargo and do not include autos and breakbulk cargoes that are not differentiated between domestic and foreign origins/destinations in the WCS statistics.

While foreign-flag containership operators transporting goods between Asia and North America could call directly in Hawaii, the traffic data above indicates that few choose to do so with eastbound Asian goods to Hawaii. This is understandable as a Hawaii diversion would cost such carriers in terms of transit time between their primary markets in the North American mainland and Asia. In the westbound transpacific trade lane that is a backhaul route in the transpacific trade this would be less of a factor but would still cost the carriers time in their ability to quickly reposition vessels for eastbound return voyages on the headhaul eastbound transpacific route. Given that foreign-flag vessels operating in U.S. domestic commerce in the event that the Jones Act were to be waived for Hawaii would

be subject to U.S. laws and regulations that would substantially add to their vessel operating costs, ²² it is possible that such carriers would choose not to undermine their competitiveness in the primary eastbound transpacific lane with such extra costs.

The other option, in the event of a Jones Act waiver for Hawaii, would be for foreign carriers to operate exclusively between U.S. ports, in effect, duplicating the services that are today provided by U.S. Jones Act carriers. This would mean that the foreign carriers would need to fly crews to and from their overseas domiciles in order to crew their vessels in U.S. ports and they would still be subject to the U.S. laws and regulations governing interstate commerce as mentioned above. Other than the fact that the economic advantage of such an arrangement may not be attractive, there are also national security issues to be considered.

National Security

In this time of coronavirus shutdowns, one may well question the wisdom of replacing U.S. resident crews with people flown in from a variety of overseas locations, primarily in Asia, to operate vessels in U.S. domestic trade. However, the real national security issue lies in the ability of the U.S. merchant marine to support the military in terms of sealift in times of war or overseas emergencies.

The Grassroot Institute of Hawaii, a frequent critic of the Jones Act, states on their website: "During Desert Shield/Desert Storm, 269 ships were chartered by Military Sealift Command to assist in the conflict; of those, only eight were Jones Act eligible."²³ It is certainly true that the U.S. military found itself highly dependent on foreign-flag chartered vessels during that conflict. The facts are these as developed by Reeve & Associates²⁴:

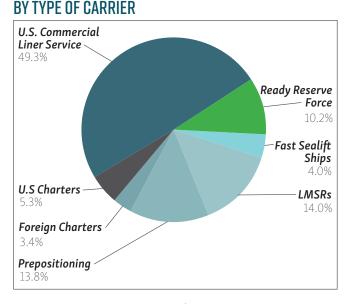
"During the 1990-1991 Persian Gulf Conflict ("During Desert Shield/Desert Storm"), the vessels of U.S.-flag commercial carriers operating in liner service moved 21.2 percent of all dry cargo to and from the theater. ²⁵ At the same time, 22.6 percent of the total dry cargo lift moved in foreign-flag vessels chartered by the U.S. Navy's Military Sealift Command (MSC) to supplement U.S.-flag capacity. The U.S.-flag fleet (government and commercial) then lacked sufficient numbers of roll-on/roll-off vessels that are suited for the carriage of military unit equipment such as tracked and wheeled vehicles, large artillery pieces, and helicopters.

Fortuitously in 1990-1991, the U.S. military was able to close the gap by resorting to the foreign-flag charter market — but at a significant premium. The U.S. Maritime Administration has estimated that the cost for cargo carried on foreign-flag vessels that supported Operations Desert Shield/Storm averaged \$50 more per ton than the cost for cargo carried on U.S.-flag vessels. In addition, despite the broad international support for the war, there were thirteen documented cases of foreign-flag vessels hesitating or refusing to enter the Persian Gulf to deliver their contracted cargoes."

The post-Persian Gulf Conflict expansion of the U.S. military's organic sealift assets through the Large, Medium-Speed RoRo Ships (LMSR) program and the coincident development of the Maritime Security Program (MSP), and the associated Voluntary Intermodal Sealift Agreement (VISA) programs to strengthen the military-commercial sealift partnership had a notable impact on sealift operations in support of Operations Enduring Freedom (OEF) and Iraqi Freedom (OIF) beginning in Afghanistan in late 2001 and then expanding to the Iraqi theater in 2003.

As shown in Exhibit V-4, the U.S. military was able to reduce its use of foreign-flag vessels from 22.6 percent of total dry cargo lifted in Operations Desert Shield/Storm to 3.4 percent in OEF/OIF. A key factor behind the increase in the United States' overall level of self-sufficiency for military sealift was the increase in the U.S. commercial liner shipping industry's contribution to the sealift mission that rose from 21.2 percent in 1990-1991 to 49.3 percent for all dry cargo lifted in support of OEF/OIF. These were the MSP and VISA vessels that are U.S.-manned but not U.S.built. However, the U.S. military's Ready Reserve Force, Fast Sealift Ships, LMSR's, and Prepositioning Ships that accounted for 42 percent of the total OEF/ OIF sealift volume that in most cases were in reserve status with skeleton crews before deployment were also manned by U.S. civilian seafarers. Half of these crews were drawn from the pool of Jones Act seafarers.27

■ EXHIBIT V-4 ■ U.S. MILITARY SEALIFT DRY CARGO OPERATIONS IN OPERATIONS ENDURING FREEDOM AND IRAQI FREEDOM



Sources: U.S. Transportation Command (Military Sealift Command and Surface Deployment and Distribution Command) and the U.S. Maritime Administration. Allocation based on measurement tons (cubic measure) of cargo lifted with conversion of RoRo cargo rated on the basis of square feet at 0.2026 measurement tons per square foot and containerized and breakbulk cargo rated on a weight basis at 0.2536 measurement tons per metric weight ton.

²³ Grassroot Institute of Hawaii, Protect the nation: Reform the Jones Act by Keli'i Akina, November 15, 2019.

Reeve & Associates, The Role of the United States' Commercial Shipping Industry in Military Sealift, for the National Defense Transportation Association, August 2006.

Includes cargoes carried by U.S. commercial shipping companies under the Special Middle East Shipping Agreement as quoted in United States Merchant Marine in the Persian Gulf War, Salvatore Mercogliano, Campbell University and US Military Academy.

²⁶ Transportation Institute, Commercial First – The Foundation of U.S. National Defense Sealift Policy, January 2006.

²⁷ American Maritime Partnership.

In addition to the U.S. seafarers, the U.S.-build requirements of the Jones Act ensures that the U.S. has access to shipbuilding and ship repair facilities that cannot be maintained purely through naval shipbuilding and repair. This is a critical factor for the Navy as highlighted in a recent report to President Trump.²⁸

Jones Act Benefits to Hawaii

Despite the negligible growth in the CONUS/Hawaii market in recent years, the vessel cargo capacity deployed by the Jones Act carriers in that market in 2020 is 22 percent greater than that deployed in 2015,²⁹ demonstrating a clear commitment by the carriers to meet the needs of Hawaii cargo shippers³⁰ with modern, efficient vessels as well as providing room for growth in the trade. A modern U.S.-built container or RoRo vessel can be expected to have a useful operational life of at least 30 years. Clearly, the carriers in the CONUS/Hawaii trade are investing in the future. However, this increase in capacity is not just to the benefit of Hawaii cargo shippers in terms of having enough capacity to carry their shipments now and in the future, but also in terms of the prices that they pay for those shipments.

As shown in Exhibit III-7 earlier in this report, the freight rates charged by carriers in the CONUS/ Hawaii market have barely moved over the last decade and have actually declined in real terms — no doubt due to some extent to intense competition between carriers who have been adding capacity with modern custom-designed vessels while the market has stagnated.

The Jones Act carriers in the CONUS/Hawaii trade have invested over \$2 billion in new ships, port terminal improvements, and equipment in recent years.31 Pasha Hawaii has introduced two new U.S.built vessels to their fleet: the 2,500 vehicle capacity RoRo Pure Car & Truck Carrier (PCTC) Jean Anne and the 1,400 TEU and 1,200 auto capacity CONRO vessel Marjorie C. Pasha also has two 2,525 TEU LNGfueled containerships on order for delivery in 2020. Matson has already taken delivery of three new vessels: the 3,220 TEU containership Daniel K. Inouye and her sistership, the Kaimana Hila, as well as the 2,750 TEU ConRO vessel, Lurline. In addition, Matson has on order a sistership of the Lurline, the Matsonia, for delivery in the fourth quarter of 2020. All of these new buildings are highly fuel-efficient, environmentally friendly and comply with the International Maritime Organization's (IMO) requirements in 2020 for reduced sulphur emissions from vessels' burning of fuel oils. Included in these investments is Matson's upgrading of its Honolulu dedicated terminal with the addition of three new high-capacity gantry cranes and upgrading of its inter-islands barge feeder services.

The Jones Act carriers serving Hawaii provide more than a pipeline for critical consumer and industrial goods moving to and from the islands. Around 13,000 residents of Hawaii are employed in U.S. Jones Act domestic maritime industry.³² These U.S. resident personnel include seafarers and others in shore positions in Hawaii in jobs that provide annual worker income of \$787 million that contributes an overall economic impact of \$3.3 billion to the Hawaii economy.³³ ■

Assessing and Strengthening the Manufacturing and Defense Industrial Base and Supply Chain Resiliency of the United States, Report to President Donald J. Trump by the Interagency Task Force In Fulfillment of Executive Order 13806, September 2018.

²⁹ CONUS/Hawaii westbound weekly liner vessel capacity in 2015 was 13,551 TEU based on Reeve & Associates' analysis.

³⁰ A "cargo shipper" is the beneficial owner of cargo moved on a cargo vessel by a cargo carrier.

³¹ Carrier press releases and Reeve & Associates' analysis.

³² Contributions of the Jones Act Shipping Industry to the U.S. Economy prepared by PricewaterhouseCoopers for Transportation Institute (January 2019).

³³ Ibid.

APPENDIX

Results of Survey of Hawaii (Honolulu) versus California (Los Angeles) Consumer Goods Price Comparisons at Major Retailers

CONSUMER GOODS ITEMS	HONOLULU	LOS ANGELES	DIFFERENCE	PERCENT	DATE:
GROCERIES					
Cereal: Cheerios , 18 oz. box (Walmart)	\$3.64	\$3.64	none	0%	20-Apr
Cereal: Kellogg's Corn Flakes, 18 oz. (Target)	\$3.89	\$3.49	\$0.40	11%	20-Apr
Cereal: Cheerios Cereal, 20.35 oz, 2-count (Costco)	\$6.99	\$6.99	none	0%	20-Apr
Milk: Great Value Whole Milk, 1 Gallon, 128 Fl. Dz. (Walmart)	\$3.08	\$3.08	none	0%	23-Apr
Milk: Horizon Organic DHA Omega-3 Milk - 0.5gal Target)	\$5.69	\$4.79	\$0.90	19%	24-Apr
Eggs: Organic Fresh Grade A Large Brown - 12ct - Good & Gather™ (Target)	\$3.60	\$3.89	\$(0.29)	-7%	25-Apr
Bacon: Oscar Mayer Center Cut Original Bacon - 12oz (Target)	\$5.99	\$6.39	\$(0.40)	-6%	25-Apr
Pancake Mix: Betty Crocker Bisquick Pancake and Baking Mix, 96 oz (Walmart)	\$6.72	\$6.72	none	0%	26-Apr
Pancake Mix: Aunt Jemima Original Pancake & Waffle Mix - 32 oz (Target)	\$3.49	\$2.89	\$0.60	21%	26-Apr
Pancake Mix: Namaste Gluten Free Waffle & Pancake Mix 21 oz., 6-pack (Costco)	\$29.99	\$29.99	none	0%	26-Apr
Soup: Campbells Chicken Noodle, 5 Pack, 15.4 oz. Walmart)	\$7.64	\$7.64	none	0%	20-Apr
Soup: Campbell's Condensed Cream of Chicken Soup - 10.5oz (Target)	\$1.29	\$0.99	\$0.30	30%	20-Apr
Soup: Nongshim Udon Noodle Soup Bowl, 9.73 pz, 6-count (Costco)	\$17.49	\$17.49	none	0%	21-Apr
Butter: Land O Lakes Half Stick Salted Butter, 8 oz. (Walmart)	\$3.54	\$2.57	\$0.97	38%	21-Apr
Butter: Salted Butter - 1lb - Good & Gather™ (Target)	\$3.59	\$3.19	\$0.40	13%	22-Apr
Peanut Butter: SKIPPY Super Chunk Peanut Butter, 40 Ounce (Walmart)	\$7.12	\$7.12	none	0%	21-Apr
Peanut Butter: Jif Creamy Peanut Butter - 16oz Target)	\$2.89	\$2.49	\$0.40	16%	21-Apr
Canned Tuna: StarKist Chunk Light Tuna in Water, 12 oz Can (Walmart)	\$3.62	\$3.62	none	0%	22-Apr
Canned Tuna: StarKist Chunk Light Tuna in Water Can (4-Pack) - 5 oz (Target)	\$5.79	\$3.79	\$2.00	53%	23-Apr
Canned Tuna: Kirkland Solid White Albacore Tuna n Water, 7 oz, 8-count (Costco)	\$16.99	\$16.99	none	0%	24-Apr
Pasta: Barilla Thin Spaghetti, Single pack Walmart)	\$1.94	\$1.94	none	0%	20-Apr
Pasta: Banza Chickpea Pasta Linguine 8 Oz Target)	\$2.99	\$2.99	none	0%	22-Apr
Pasta: De Cecco Angel Hair Pasta - 16oz (Costco)	\$1.99	\$1.99	none	0%	20-Apr
Pasta Sauce: Newman's Tomato & Basil, 3 Pack. (Walmart)	\$8.23	\$8.23	none	0%	20-Apr

CONSUMER GOODS ITEMS	HONOLULU	LOS ANGELES	DIFFERENCE	PERCENT	DATE:
Pasta Sauce: Bertolli Tomato & Basil Pasta Sauce - 24oz. (Target)	\$2.59	\$2.59	none	0%	21-Apr
Pasta Sauce: Bertolli Organic Pasta Sauce, 24 oz, 4-count (Costco)	\$35.00	\$35.00	none	0%	20-Apr
Rice: Great Value Long Grain Enriched Rice, 20 lb. (Walmart)	\$8.48	\$8.48	none	0%	20-Apr
Rice: Enriched Long Grain White Rice 2lbs - Market Pantry™ (Target)	\$1.69	\$1.59	\$0.10	6%	22-Apr
Cooking Oil: Wesson Pure Canola Oil, 1 gal. (Walmart)	\$6.98	\$6.98	none	0%	20-Apr
Cooking Oil: Canola Oil - 1 Gallon - Market Pantry™ (Target)	\$4.99	\$4.99	none	0%	22-Apr
"Cooking Oil: La Civetta Olive Cooking Oil & Spray 2 pack (Costco)"	\$71.99	\$71.99	none	0%	23-Apr
Olive Oil: Bertolli Extra Virgin Olive Oil - 16.9 fl oz (Walmart)	\$5.33	\$4.98	\$0.35	7%	20-Apr
Olive Oil: Extra Virgin Olive Oil - 16.9oz - Market Pantry™ (Target)	\$3.99	\$4.39	\$(0.40)	-9%	22-Apr
Olive Oil: Myrtos Greek Extra Virgin Olive Oil 3L, Tins, 2-pack (Costco)	\$71.99	\$71.99	none	0%	23-Apr
Beef Stew: Dinty Moore, 20 oz. can (Walmart)	\$2.44	\$2.18	\$0.26	12%	20-Apr
Beef Stew: Dinty Moore Microwaveable Beef Stew 10 oz (Target)	\$2.59	\$2.39	\$0.20	8%	22-Apr
Ground Beef: All Natural 93% Lean/7% Fat Tray, 2.25 lbs (Walmart)	\$10.48	\$10.48	none	0%	22-Apr
Ground Beef: All Natural 93/7 Ground Beef - 1lb - Market Pantry™ (Target)	\$4.99	\$5.49	\$(0.50)	-9%	22-Apr
Ground Beef: D'Artagnan American Wagyu Burger, 12-pack, 6 lbs (Costco)	\$139.99	\$139.99	none	0%	23-Apr
Pork Chops: Boneless Center Pork Chops - 15oz - Market Pantry (Target)	\$4.99	\$4.99	none	0%	24-Apr
Smoked Salmon: Bumble Bee Premium Smoked Coho Salmon, 3.75oz (Walmart)	\$2.74	\$2.74	none	0%	24-Apr
Fresh Salmon: Alaskan Salmon - 8oz (Target)	\$10.61	\$8.99	\$1.62	18%	24-Apr
Fish Oil: Kirkland Signature Wild Alaskan Fish Oil 1400 mg., 230 Softgels (Costco)	\$20.99	\$20.99	none	0%	25-Apr
Canned Meats: Spam Black Pepper, 12 Ounce Can (Walmart)	\$2.92	\$2.92	none	0%	21-Apr
Canned Meats: Spam Original Lunch Meat 12 oz (Target)	\$2.99	\$2.99	none	0%	22-Apr
Smoked Meats: Kiolbassa Organic Smoked Beef Sausage 33.6 oz, 3-pack (Costco)	\$89.99	\$89.99	none	0%	25-Apr
Canned Tuna: Bumble Bee White Albacore Tuna in Water, 5 oz - 4 pk (Walmart)	\$7.92	\$7.92	none	0%	25-Apr
Canned Tuna: Bumble Bee White Albacore Tuna in Water 5 oz - 4 pk (Target)	\$8.49	\$6.99	\$1.50	21%	25-Apr
Groceries (Continued)					
Hot Dogs: Ball Park® Beef Hot Dogs, Bun Size Length, 16 Count (Walmart)	\$6.98	\$5.26	\$1.72	33%	26-Apr
Hot Dogs: Ball Park Bun Size Beef Franks - 8ct/15oz (Target)	\$4.39	\$3.29	\$1.10	33%	26-Apr
Baked Beans: Bush's Best Original Baked Beans, 8.3 Oz (Walmart)	\$1.14	\$1.14	none	0%	23-Apr

CONSUMER GOODS ITEMS	HONOLULU	LOS ANGELES	DIFFERENCE	PERCENT	DATE:
Baked Beans: Bush's Original Baked Beans - 28oz (Target)	\$2.39	\$2.19	\$0.20	9%	23-Apr
"Orange Juice: Ocean Spray 100% Orange Juice, 60 Fl Oz, 1 Count (Walmart)"	\$3.98	\$3.98	none	0%	24-Apr
Orange Juice: Tropicana Pure Premium No Pulp Orange Juice - 52 fl oz (Target)	\$5.49	\$3.89	\$1.60	41%	24-Apr
Fruit Juice: Hawaiian Punch Fruit Juicy Red - 1 gal Bottle (Target)	\$2.39	\$2.19	\$0.20	9%	24-Apr
Frozen Meals: Lean Cuisine Chicken Parmesan - 10.875oz (Target)	\$2.59	\$3.29	\$(0.70)	-21%	24-Apr
Frozen Meals: Schwan's 4 Authentic Asian Meals for 2 in 20 Minutes (Costco)	\$89.99	\$89.99	none	0%	23-Apr
Frozen Pizza: DiGiorno Rising Crust Supreme Frozen Pizza - 31.5oz (Target)	\$5.49	\$5.89	\$(0.40)	-7%	27-Apr
Frozen Peas: Birds Eye Frozen Baby Sweet Peas - 13oz (Target)	\$2.35	\$2.35	none	0%	27-Apr
Coffee: Maxwell House Colombian, 24.5 oz. (Walmart)	\$6.48	\$6.48	none	0%	20-Apr
Coffee: Maxwell House Medium Roast Ground Coffee - 30.6oz (Target)	\$8.29	\$7.29	\$1.00	14%	20-Apr
Coffee: Starbucks French Roast, Whole Bean Coffee, 2.5 lbs (Costco)	\$15.99	\$15.99	none	0%	23-Apr
Flour: Pillsbury Best All Purpose Flour, 5 lb (Walmart)	\$2.82	\$2.46	\$0.36	15%	21-Apr
Flour: Gold Medal All Purpose Flour - 5lb (Target)	\$2.79	\$2.59	\$0.20	8%	21-Apr
Flour: Namaste Gluten Free Perfect Flour Blend, 6-pack (Costco)	\$54.99	\$54.99	none	0%	23-Apr
Bread: Canyon Bakehouse Gluten Free Country White Bread 15 oz (Walmart)	\$4.98	\$4.98	none	0%	26-Apr
Bread: Sara Lee 100% Whole Wheat Bread - 20oz (Target)	\$4.98	\$2.69	\$2.29	85%	26-Apr
Ketchup: Heinz Tomato Ketchup, 64 oz Bottle (Walmart)	\$4.22	\$4.22	none	0%	22-Apr
Ketchup: Heinz Tomato Ketchup, 632 oz Bottle (Target)	\$3.69	\$3.59	\$0.10	3%	22-Apr
Ketchup: Heinz Organic Tomato Ketchup, 44 oz, 2-pack (Costco)	\$9.49	\$9.49	none	0%	23-Apr
Soy Sauce: Kikkoman Less Sodium Soy Sauce, 40 oz (Walmart)	\$6.90	\$6.22	\$0.68	11%	24-Apr
Soy Sauce: Kikkoman Naturally Brewed Soy Sauce 128 oz (Target)	\$12.99	\$12.99	none	0%	24-Apr
Mustard: Maille Mustard Old Style 7.3 oz - 2 pack (Walmart)	\$5.78	\$5.78	none	0%	25-Apr
Mustard: Gray Poupon Dijon Mustard Squeeze Bottle - 10oz (Target)	\$3.99	\$3.79	\$0.20	5%	25-Apr
Salad Dressing: Newman's Olive Oil & Vinegar Dressing, 16 Oz-2 pack (Walmart)	\$5.96	\$5.96	none	0%	24-Apr
Salad Dressing: Newman's Own Olive Oil & Vinegar Dressing, 16 Oz (Target)	\$4.49	\$3.19	\$1.30	41%	24-Apr
Chicken: Boneless Skinless Breasts Frozen, 3 lbs (Walmart)	\$6.42	\$5.94	\$0.48	8%	20-Apr
Chicken: Market Pantry Boneless Skinless Breasts, 1 lb (Target)	\$3.49	\$2.99	\$0.50	17%	22-Apr
Fresh Papaya: Per lb. (Walmart)	\$2.74	\$2.28	\$0.46	20%	23-Apr



CONSUMER GOODS ITEMS	HONOLULU	LOS ANGELES	DIFFERENCE	PERCENT	DATE:
DURABLE & HOUSEHOLD GOODS					
Mattress: Sealy Response Performance 12" Cushion Firm Mattress (Walmart)	\$499.00	\$499.00	none	0%	21-Apr
Mattress: 12" Memory Foam Mattress - Sealy (Target)	\$849.99	\$849.99	none	0%	21-Apr
Mattress: Novaform 14" Comfort Grande King EVENcor GelPlus (Costco)	\$579.99	\$579.99	none	0%	22-Apr
Television: SAMSUNG 65" Class 4K UHD 2160p LED Smart TV (Walmart)	\$478.00	\$478.00	none	0%	21-Apr
Televisiion: Samsung 55" Smart 4K HDR UHD TV (Target)	\$349.99	\$349.99	none	0%	21-Apr
Television: Samsung 50" Class - TU700D Series - 4K UHD LED LCD (Costco)	\$349.99	\$349.99	none	0%	22-Apr
Refrigerator: Frigidaire FFHT2021Q 30in Wide 20.4 Cu. Ft. Top Freezer (Walmart)	\$1,252.80	\$1,252.80	none	0%	21-Apr
Refrigerator: Whirlpool 4.0 cu ft Refrigerator WH40S1E - Stainless Steel (Target)	\$229.99	\$229.99	none	0%	22-Apr
Dishwasher: Frigidaire 24" Dishwasher, Black, FFBD2412SB (Walmart)	\$351.89	\$351.89	none	0%	26-Apr
Dishwasher: Maytag Front Control Stainless Steel, 50 dBA (Home Depot)	\$527.40	\$527.40	none	0%	26-Apr
Washing Machine: Magic Chef 2.7 cu ft Front Load Washer, White (Walmart)	\$649.00	\$649.00	none	0%	26-Apr
Washing Machine: 4.3 cu. ft. High-Efficiency Top Load Quick Wash (Home Depot)	\$547.20	\$547.20	none	0%	26-Apr
Coffee Maker: BLACK+DECKER 12-Cup Coffeemaker, Programmable (Walmart)	\$34.96	\$34.96	none	0%	27-Apr
Coffee Maker: Ninja 12 Cup Programmable Brewer (Target)	\$79.99	\$79.99	none	0%	27-Apr
Bed Sheets: Comfort Classics 600 Thread Count 100% Pima Cotton (Walmart)	\$47.24	\$47.24	none	0%	21-Apr
Bed Sheets: Supima Classic Hemstitch Sheet Set 700 Thread Count (Target)	\$79.99	\$79.99	none	0%	22-Apr
Bed Sheets: Goodrest Organic 6-piece Sheet Set (Costco)	\$19.99	\$19.99	none	0%	23-Apr
Bath Towels: Better Homes & Gardens, Aquifer/ Arctic White (Walmart)	\$7.72	\$7.72	none	0%	24-Apr
Bath Towels: 8pc Cotton Bath Towel Set (Target)	\$64.99	\$64.99	none	0%	24-Apr
Bath Towels: Turkish Towels Optimum 2-piece Bath Sheet Set (Costco)	\$59.99	\$59.99	none	0%	24-Apr
Toothpaste: Crest Cavity & Tartar Protection Toothpaste, 5.7 Oz 3 Pack (Walmart)	\$3.94	\$3.94	none	0%	25-Apr
Toothpaste: Crest Cavity Protection Toothpaste, Regular Paste, 5.7 oz, 2 Pk (Target)	\$2.99	\$2.99	none	0%	25-Apr

CONSUMER GOODS ITEMS	HONOLULU	LOS ANGELES	DIFFERENCE	PERCENT	DATE:
Tires: Goodyear Wrangler Radial 235/75R15 105 S (Walmart)	\$97.98	\$97.98	none	0%	22-Apr
Tires: Michelin Defender XT (Target)	\$90.96	\$90.96	none	0%	23-Apr
Tires: Greenball Greensaver Plus GT Golf Cart Tire (Costco)	\$45.99	\$45.99	none	0%	24-Apr
Bicycles: Mongoose Excursion Mountain Bike, Women's, 26", Black/Teal (Walmart)	\$148.00	\$148.00	none	0%	25-Apr
Bicycles: Schwinn Women's Adamson 700c/28" Bicycle - Black (Target)	\$167.99	\$167.99	none	0%	25-Apr
Toilet Paper: Angel Soft Toilet Paper, 6 Mega Rolls (Walmart)	\$6.12	\$5.28	\$0.84	16%	23-Apr
Toilet Paper: Charmin Ultra Strong Toilet Paper - Mega Rolls (Target)	\$12.99	\$12.99	none	0%	23-Apr
Toilet Paper: Cottonelle Ultra Comfort Care Toilet Paper 36 Rolls (Costco)	\$32.99	\$32.99	none	0%	23-Apr
Paper Towels: Bounty Select-A-Size Paper Towels, 2 Double Rolls (Walmart)	\$5.34	\$4.64	\$0.70	15%	24-Apr
Paper Towels: Bounty - 12 rolls (Costco)	\$22.49	\$22.49	none	0%	24-Apr
Paper Towels: Viva Signature Paper Towels – 6 Rolls (Target)	\$12.49	\$12.49	none	0%	24-Apr
Arm Chair: Jean Arm Chair in Caribbean Blue Linen (Walmart)	\$218.22	\$218.22	none	0%	24-Apr
Arm Chair: Sean Flared Arm Chair - Handy Living (Target)	\$243.99	\$243.99	none	0%	24-Apr
Arm Chair: McKinley Club Chair (Costco)	\$185.99	\$185.99	none	0%	24-Apr
Sofas: Whitney 73" Sofa in Beige (Walmart)	\$344.67	\$344.67	none	0%	24-Apr
Sofas: 73" Copenhagen Sofa - Serta (Target)	\$449.99	\$449.99	none	0%	24-Apr
Sofas: Quinton Top Grain Leather Sectional with Adjustable Headrests (Costco)	\$2,999.99	\$2,999.99	none	0%	24-Apr
Air Conditioners: GE 5000 BTU 115-Volt, White, AHT05LZ (Walmart)	\$139.00	\$139.00	none	0%	25-Apr
Air Conditioners: Haier QHV05LX 5,050 BTU Air Conditioner (Target)	\$249.99	\$249.99	none	0%	25-Apr
Air Conditioners: GE 10,100 BTU 115-Volt Window Air Conditioner (Home Depot)	\$349.00	\$349.00	none	0%	26-Apr
Electric Drills: Hyper Tough 18-Volt Ni-cad Cordless Drill, AQ75023G (Walmart)	\$19.83	\$19.83	none	0%	25-Apr
Electric Drills: BLACK+DECKER 18v Cordless Power Drill With Accessories (Target)	\$39.99	\$39.99	none	0%	25-Apr
Electric Drills: 18-Volt Ni-Cad 1/2 in. Cordless Drill with Case (Home Depot)	\$92.28	\$92.28	none	0%	25-Apr
TOTAL OF DURABLE & HOUSEHOLD GOODS PRICES:	\$13,043.32	\$13,041.78	\$1.54	0.01%	

CONSUMER GOODS ITEMS	HONOLULU	LOS ANGELES	DIFFERENCE	PERCENT	DATE:
CLOTHING					
Blue Jeans: Levi's Men's 505 Regular Fit Jeans (Walmart)	\$39.99	\$39.99	none	0%	22-Apr
Blue Jeans: Levi's® Men's 505™ Regular Fit Jeans (Target)	\$39.99	\$39.99	none	0%	23-Apr
Blue Jeans: Women's Signature by Levi Strauss & Company (Walmart)	\$23.94	\$23.94	none	0%	23-Apr
Blue Jeans: DENIZEN® from Levi's® Women's Mid-Rise Skinny Jeans (Target)	\$27.99	\$27.99	none	0%	23-Apr
"Tee Shirts: Hanes Men's Tagless Comfortblend Crew T-Shirt 6 Pack (Walmart)"	\$19.96	\$19.96	none	0%	23-Apr
Tee Shirts: Hanes 1901 Men's Short Sleeve T-Shirt (Target)	\$7.39	\$7.39	none	0%	24-Apr
Tee Shirts: IZOD Men's Microstripe Polo (Costco)	\$14.99	\$14.99	none	0%	24-Apr
Womens Tops: Avia Women's Active Blouson Tee (Walmart)	\$9.96	\$9.96	none	0%	24-Apr
Womens Tops: Women's Long Sleeve V-Neck Shirt - Universal Thread™ (Target)	\$24.99	\$24.99	none	0%	25-Apr
Womens Tops: Matty M Ladies' 3/4 Sleeve Knot Top (Costco)	\$16.99	\$16.99	none	0%	25-Apr
Womens Dress Shirts: Port Authority Ladies Dimension Knit Dress Shirt (Walmart)	\$25.58	\$25.58	none	0%	25-Apr
Womens Dress Shirts: Ann Taylor (sponsored) Polka Dot Essential Shirt (Target)	\$59.99	\$59.99	none	0%	25-Apr
Sweaters: Women's Long Sleeve Supima V-Neck T-Shirt (Walmart)	\$25.95	\$25.95	none	0%	22-Apr
Sweaters: Women's Crewneck Textured Pullover Sweater - A New Day™ (Target)	\$20.99	\$20.99	none	0%	23-Apr
Jackets: Eddie Bauer Men's CirrusLite Down Jacket, Large (Walmart)	\$59.40	\$59.40	none	0%	22-Apr
Jackets: Men's Standard Fit Knit Blazer - Goodfellow & Co™ (Target)	\$49.99	\$49.99	none	0%	23-Apr
Jackets: Time and Tru Women's Drape Front Blazer (Walmart)	\$24.94	\$24.94	none	0%	24-Apr
Jackets: Women's Utility Anorak Jacket - Universal Thread™ (Target)	\$39.99	\$39.99	none	0%	24-Apr
Shoes: Men's Skechers Sparta 2.0 TR Training Shoe (Walmart)	\$44.96	\$44.96	none	0%	22-Apr
Shoes: Men's S Sport by Skechers Brise Non Slip Sneakers (Target)	\$39.99	\$39.99	none	0%	23-Apr
Shoes: Women's Time and Fashion Mid Boot (Walmart)	\$19.98	\$19.98	none	0%	24-Apr
Shoes: Women's Nora Faux Leather Ankle Bootie - Universal Thread™ (Target)	\$24.99	\$24.99	none	0%	24-Apr
Mens Socks: Hanes Comfort Blend Ankle Socks, 6 Pack (Walmart)	\$10.75	\$10.75	none	0%	25-Apr
Mens Socks: Signature Gold by GOLDTOE Men's Argyle Crew Socks 5pk (Target)	\$13.99	\$13.99	none	0%	25-Apr
Womens Socks: Ladies Ankle Socks 10 Pack, Black, Size 5-9 (Walmart)	\$10.97	\$10.97	none	0%	25-Apr
Womens Socks: Hanes Premium Cool Comfort Lightweight 6pk No Show (Target)	\$10.99	\$10.99	none	0%	25-Apr
TOTAL OF CLOTHING PRICES:	\$709.64	\$709.64	NONE	0%	

CONSUMER GOODS ITEMS	HONOLULU	LOS ANGELES	DIFFERENCE	PERCENT	DATE:
BUILDING MATERIALS & HARDWARE					
Plywood: Common: 23/32 in. x 4 ft. x 8 ft. (Home Depot)	\$39.56	\$39.56	none	0%	24-Apr
Plywood: 15/32 CAT PS1-09 Douglas Fir, Application as 4 x 8 (Lowes)	\$20.55	\$18.05	\$2.50	14%	25-Apr
Sheetrock: USG Sheetrock Brand 3/8 in. x 4 ft. x 8 ft. Panels (Home Depot)	\$21.98	\$21.98	none	0%	24-Apr
Sheetrock: ToughRock (Common: 1/2-in x 4-ft x 8-ft) Panel (Lowes)	\$21.36	\$21.36	none	0%	25-Apr
Lumber: 2 in. x 4 in. x 96 in. Premium Kiln-Dried Whitewood Stud (Home Depot)	\$3.37	\$3.37	none	0%	24-Apr
Lumber: 2-in x 4-in x 8-ft Stud Douglas Fir Stud (Common) (Lowes)	\$3.72	\$3.22	\$0.50	16%	24-Apr
House Paint: Kilz 1 Gal. White Interior/Exterior Multi-Surface (Home Depot)	\$16.98	\$16.98	none	0%	24-Apr
House Paint: Color Place Ultra Semi-Gloss Exterior Paint & Primer, 1-Gal (Walmart)	\$27.94	\$26.77	\$1.17	4%	25-Apr
House Paint: HGTV HOME Sherwin-Williams Everlast Semi-Gloss Exterior (Lowes)	\$51.98	\$51.98	none	0%	25-Apr
Windows: Jeld-Wen 23.5 in. x 23.5 in. V-4500 Series Vinyl Sliding (Home Depot)	\$156.28	\$156.28	none	0%	24-Apr
Windows: ThermaStar by Pella Vinyl Sliding Window (48-in x 48-in) (Lowes)	\$154.00	\$154.00	none	0%	25-Apr
Doors: 36 in. x 80 in. 6-Panel Primed Steel Prehung Front Door (Home Depot)	\$205.00	\$205.00	none	0%	24-Apr
Doors: Craftsman Clear Mahogany Prehung Entry Door, 36-in x 80-in (Lowes)	\$1,820.00	\$1,820.00	none	0%	25-Apr
Ladder: 16 ft. Aluminum Extension Ladder with 225 lb. Ld. Capacity (Home Depot)	\$89.00	\$89.00	none	0%	24-Apr
Ladder: Werner D1100 Aluminum 16-ft Type 3 - 200 lbs. Extension Ladder (Lowes)	\$89.07	\$89.07	none	0%	25-Apr
TOTAL OF BUILDING MATERIALS & HARDWARE PRICES:	\$2,720.79	\$2,716.62	\$4.17	0.15%	

CONSUMER GOODS ITEMS	HONOLULU	LOS ANGELES	DIFFERENCE	PERCENT	DATE:
■ AUTOMOBILES* ■					
2020 Toyota Tacoma Access Cab SR5 (Invoice Price)	\$30,154.00	\$30,154.00	none	0%	24-Apr
2020 Toyota 4Runner SR5 Premium (Invoice Price)	\$37,289.00	\$37,289.00	none	0%	24-Apr
2020 Toyota RAV4 XLE (Invoice Price)	\$26,594.00	\$26,594.00	none	0%	24-Apr
2020 Toyota Corolla LE (Invoice Price)	\$19,520.00	\$19,520.00	none	0%	24-Apr
2020 Toyota Camry LE (Invoice Price)	\$23,803.00	\$23,803.00	none	0%	24-Apr
2020 Ford F150 Super Cab XLT (Invoice Price)	\$39,786.00	\$39,786.00	none	0%	24-Apr
2019 Chevrolet Silverado 1500 Double Cab LT (Invoice Price)	\$36,070.00	\$36,070.00	none	0%	24-Apr
2020 Tesla Model 3 Standard Range Plus (MSRP)	\$41,190.00	\$41,190.00	none	0%	24-Apr
2020 Honda CR-V EX (MSRP)	\$28,680.00	\$28,680.00	none	0%	24-Apr
2020 Honda Civic EX (MSRP)	\$24,755.00	\$24,755.00	none	0%	24-Apr
TOTAL OF AUTOMOBILES PRICES:	\$307,841.00	\$307,841.00	NONE	0.00%	

^{*} Source: Kelly Blue Book for the Top Ten selling autos in Hawaii

PREPARED BY:

Reeve & Associates and TZ Economics



