HAWAII DEFENSE ECONOMY
Second largest sector of Hawaii’s economy

Phase II HDE Website User Guide

Version 1.1

Date: November 30th, 2020
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1.0 Welcome to the HDE Website!

The Hawaii Defense Economy (HDE) website is intended to “tell” the story of defense spending in the state. It’s landing page dramatically shows the importance of the U.S. military in Hawaii both past and present with a striking view of the hallowed waters of Pearl Harbor, commemorated by the USS Arizona Memorial on the right, the USS Missouri on the left, representing the ultimate victory over the Japanese Empire, and the U.S. Navy’s most sophisticated fast-attack submarine, the Virginia-class (SSN 780 also bearing the name “USS Missouri”) on the lower right, signifying the future and the continued strategic importance of Hawaii to the Indo-Pacific region.¹ The website provides:

- 28 defense-related personnel and spending reports to enhance the understanding of the economic impact of U.S. Department of Defense (DoD) in the state of Hawaii,
- Information on key installations and the branches of service located in the state,
- Resources for small businesses, and
- Links to important HDE partners.

The HDE website is managed by the Department of Department of Business, Economic Development, and Tourism (DBEDT) – Business Support Branch and is funded by the DoD – Office of Economic Adjustment (OEA). The website was overhauled in 2020 to update its content with a particular focus on maintaining up-to-date spending analysis.

¹ PEARL HARBOR, Hawaii - The crew of the Virginia-class fast-attack submarine USS Missouri (SSN 780) render honors to the Battleship Missouri Memorial while arriving at Joint Base Pearl Harbor-Hickam as part of a homeport change from Groton, Conn. Photo By: U.S. Navy photo by Mass Communication Specialist 2nd Class Michael H. Lee. Source: https://www.pacom.mil/Media/Photos/lgphoto/2001870826/
1.1 Website Navigation

The HDE website has seven tabs across the top of the “main page” that the user can click on to explore different Hawaii defense insights:

- Defense in Hawaii
- Spending Insights
- Building Resiliency
- Economic Impact
- Data Tools
- About
- Login

The user can hover over each tab to open a drop-down list to preview the content within each tab or simply click on the tab and the first topic will be shown by default. Select topics have a second drop-down list which can be previewed, indicated by a downward arrow (“KEY INSTALLATIONS”, shown in Figure 1). At any time, the user can return to the “main page” by clicking on the “Hawaii Defense Economy” icon in the top left corner.

![Figure 1](image)

1.2 Login

The Login tab allows new users to register to the HDE website or login if they have previously registered. By registering and logging in, the user will be able to immediately access tabs and topics that are not available to non-registered users.
1.3 HDE At-a-Glance Report

Below the Pearl Harbor picture on the main landing page, the website provides a summary report of overall defense spending in Hawaii, which includes two components (shown in Figure 2):

- Total Payroll
- Contract Spending

OEA provides publishes this data in a report each fiscal year, which may lag by more than a year. The report also includes OEA’s estimate of defense spending as a percentage of the state’s Gross Domestic Product (GDP). Finally, the chart provides a breakdown of active duty, civilians, and guard/reserve personnel, based on quarterly reports provided by the Defense Manpower Data Center (DMDC). Links are provided in the report to the data sources.

![Figure 2](image)

2.0 Defense in Hawaii

This tab provides an overview of the military presence in Hawaii, and its strategic and economic significance.

- **Past and Present**: This link takes you to a brief history of Hawaii’s long military presence and includes a timeline of events spanning back to 1898.

- **News**: This link takes you to recent Hawaii defense-related news stories and articles, which will be frequently updated.

- **Key Installations**: This link takes you to the top military installations in Hawaii that have important economic impacts on the islands within the state. It provides the economic overview and history for the Pacific Missile Range Facility (PMRF) - Kauai, Pearl Harbor Naval Shipyard (PHNSY), and Tripler Army Medical Center (TAMC).

- **Military Branches**: This link provides an overview of the personnel, key commands and facilities for each branch of service located in Hawaii (see Figure 3).
3.0 Spending Insights

This page provides four defense-related spending reports that allow users to view how the money flows from government agencies to various industries and contractors or grantees using different visualizations.

3.1 Agency Flows to Top Industry Segments

This report explores how money flows from awarding sub agencies to the Top 5 industry segments (NAICS and PSC). On the left side of Box A, you will see a list of agencies. The right side shows the top products and services that each is buying. You can use Boxes B and C to focus the report on specific counties and agencies. Note: Net dollar flows are filtered on the most recent annual 12-month period (see Figure 4).

![Figure 4](image-url)
3.2 Net Dollar Flows by Awarding Sub Agency

This report shows the net dollar flows by Awarding Sub Agency. Box A shows the total flows by year. For the most recent 12-month period, a text box provides the percentage of dollars awarded to entities “physically” located in Hawaii over total HDE spending. You can hover above each bar to see the net flow amount for that year. Use Box B to select a specific contracting sub agency, Box C to filter on industry/NAICS, and Box D to filter on award type (see Figure 5).

Figure 5
3.3 Spending Explorer

This report provides a wide variety of filters to explore defense spending. You can search by company name (Box A), product or service category (Box B and Box C), County (Box D), Contract Type (Box E), or Awarding Sub Agency (Box F). A list of specific contracts can be viewed in Box G (see Figure 5).
3.4 Business Map

This map identifies each organization/business within the scope of defense related spending by physical address. Size of bubble and color is based on net dollar flows relative to the filters utilized. Select Box A to filter on a specific organization/business. Select Box B to filter on a Hawaii county and adjust the map accordingly. Select Box C to filter organizations/businesses by their identified six-digit primary NAICS code. Select Box D to filter on a particular state where the organization/business is physically located and adjust map accordingly. Although the organization/business may be physically located in another state, the place of performance occurred in Hawaii. Finally, select “Yes” in Box E to filter on small businesses only (see Figure 7).

Figure 7

<table>
<thead>
<tr>
<th>Business Map</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refresh Data</td>
</tr>
<tr>
<td>B. Select County</td>
</tr>
<tr>
<td>All</td>
</tr>
<tr>
<td>078654178</td>
</tr>
<tr>
<td>621610270</td>
</tr>
<tr>
<td>624996333</td>
</tr>
<tr>
<td>122762222</td>
</tr>
<tr>
<td>868643537</td>
</tr>
<tr>
<td>034663537</td>
</tr>
<tr>
<td>122627289</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DUNS</th>
<th>Name</th>
<th>Role</th>
<th>SmallBiz</th>
<th>PrimeAwards</th>
<th>AssistAwards</th>
<th>SubAwards</th>
<th>SubAssistAwards</th>
<th>Govt_POC_email</th>
<th>Govt_POC_Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>078654178</td>
<td>HENSIL PHELPS CONSTRUCTION CO</td>
<td>Prime</td>
<td>No</td>
<td>$150,595,074</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td><a href="mailto:tdiersbock@hensilphelps.com">tdiersbock@hensilphelps.com</a></td>
<td>TOM DIERSECK</td>
</tr>
<tr>
<td>621610270</td>
<td>MANI, INC.</td>
<td>Both</td>
<td>No</td>
<td>$91,056,017</td>
<td>$0</td>
<td>$4,949,027</td>
<td>$0</td>
<td><a href="mailto:estimating@rannahawaii.com">estimating@rannahawaii.com</a></td>
<td>FOONEY FREESTONE</td>
</tr>
<tr>
<td>624996333</td>
<td>MANU KAI LLC</td>
<td>Prime</td>
<td>No</td>
<td>$64,031,111</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td><a href="mailto:plahur@alakaia.com">plahur@alakaia.com</a></td>
<td>PHILIP KAHUE</td>
</tr>
<tr>
<td>122762222</td>
<td>BAE SYSTEMS HAWAII SHIPYARDS INC.</td>
<td>Prime</td>
<td>No</td>
<td>$55,238,798</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td><a href="mailto:peter.lyle@baesystems.com">peter.lyle@baesystems.com</a></td>
<td>PETER LYLE</td>
</tr>
<tr>
<td>868643537</td>
<td>KEWIT INFRASTRUCTURE WEST CO.</td>
<td>Prime</td>
<td>No</td>
<td>$49,761,078</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td><a href="mailto:jill.vaughan@kewit.com">jill.vaughan@kewit.com</a></td>
<td>JILL VAUGHAN</td>
</tr>
<tr>
<td>034663537</td>
<td>PACIFIC SHIPYARDS INTERNATIONAL LLC</td>
<td>Both</td>
<td>Yes</td>
<td>$47,592,248</td>
<td>$0</td>
<td>$166,050</td>
<td>$0</td>
<td><a href="mailto:info@pacificshipyards.com">info@pacificshipyards.com</a></td>
<td>WAIN WOOD</td>
</tr>
<tr>
<td>122627289</td>
<td>HAWAIIAN DREDGING CONSTRUCTION COMPANY, INC.</td>
<td>Prime</td>
<td>No</td>
<td>$35,134,281</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td><a href="mailto:gmaikut@hdc.com">gmaikut@hdc.com</a></td>
<td>GERRY MAIKUT</td>
</tr>
</tbody>
</table>

$1.3bn
Net Dollar Flows
3.5 Top Contractors

This link brings you to a new page, which highlights important HDE businesses and provides a report of the Top HDE contractors in descending order by net dollar flows (see Figures 8 and 9).

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This report shows the largest contractors in descending order by net dollar flows. The information can be filtered on small business awards (Box B), county (Box C) and awarding sub agency (Box D). You can search by a specific NAICS code using Box E. If you click on a specific contractor, Box F provides contract details. Note: Net dollar flows (Box A) are filtered on the most recent annual 12-month period (see Figure 9).
Figure 9

<table>
<thead>
<tr>
<th>Type</th>
<th>Net Dollar Flows</th>
<th>PrimeDUNS</th>
<th>PrimeName</th>
<th>recipient_prime_duns</th>
<th>award_id_paid</th>
<th>awarding_agency_name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contract</td>
<td>$64,955,202</td>
<td>078564178</td>
<td>HENSEL PHILPS CONSTRUCTION CO.</td>
<td>63322085</td>
<td>W9128A17C0005</td>
<td>DEPARTMENT OF DEFENSE</td>
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<tr>
<td>Contract</td>
<td>$60,084,564</td>
<td>086417136</td>
<td>VISOR SHIPYARDS, INC.</td>
<td>153727818</td>
<td>N0002400C4464</td>
<td>DEPARTMENT OF DEFENSE</td>
</tr>
<tr>
<td>Contract</td>
<td>$54,882,418</td>
<td>127272222</td>
<td>BAE SYSTEMS HAWAII SHIPYARDS INC.</td>
<td>217304393</td>
<td>N002414C4412</td>
<td>DEPARTMENT OF DEFENSE</td>
</tr>
<tr>
<td>Contract</td>
<td>$48,822,678</td>
<td>621610278</td>
<td>NAN, INC.</td>
<td>621610278</td>
<td>N627219C1317</td>
<td>DEPARTMENT OF DEFENSE</td>
</tr>
<tr>
<td>Contract</td>
<td>$44,236,795</td>
<td>078564178</td>
<td>HENSEL PHILPS CONSTRUCTION CO.</td>
<td>63322085</td>
<td>N627219C1303</td>
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</tr>
<tr>
<td>Contract</td>
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<td>NAN, INC.</td>
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<td>N627220C1315</td>
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</tr>
<tr>
<td>Contract</td>
<td>$39,530,293</td>
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<td>KIEWIT INFRASTRUCTURE WEST CO.</td>
<td>70729517</td>
<td>N6247819C1515</td>
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<tr>
<td>Contract</td>
<td>$35,924,194</td>
<td>034603537</td>
<td>PACIFIC SHIPYARDS INTERNATIONAL, LLC</td>
<td>34603537</td>
<td>N002419C4404</td>
<td>DEPARTMENT OF DEFENSE</td>
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<tr>
<td>Contract</td>
<td>$34,478,381</td>
<td>009550064</td>
<td>WHITING-TURNER CONTRACTING COMPANY, THE</td>
<td>6950604</td>
<td>W9128A19C0009</td>
<td>DEPARTMENT OF DEFENSE</td>
</tr>
<tr>
<td>Contract</td>
<td>$31,625,266</td>
<td>122672289</td>
<td>HAWAIIAN DREDGING CONSTRUCTION COMPANY, INC.</td>
<td>690593314</td>
<td>N627219C1319</td>
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<tr>
<td>Contract</td>
<td>$27,461,707</td>
<td>828250576</td>
<td>BEAR DEFENSE SERVICES, LLC</td>
<td>828250576</td>
<td>47QFCA19C0021</td>
<td>GENERAL SERVICES ADC</td>
</tr>
<tr>
<td>Contract</td>
<td>$25,050,785</td>
<td>927515165</td>
<td>ZUMWALT CONSTRUCTION, INC.</td>
<td>927515165</td>
<td>927515165</td>
<td>GENERAL SERVICES ADC</td>
</tr>
<tr>
<td>Contract</td>
<td>$23,647,935</td>
<td>606570742</td>
<td>HI MISSION DRIVEN INNOVATIVE SOLUTIONS INC.</td>
<td>967363231</td>
<td>FA5215177F7004</td>
<td>DEPARTMENT OF DEFENSE</td>
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<tr>
<td>Assistance</td>
<td>$23,532,209</td>
<td>77616997</td>
<td>DEFENSE, HAWAII DEPARTMENT OF</td>
<td>77676997</td>
<td></td>
<td>DEPARTMENT OF DEFENSE</td>
</tr>
<tr>
<td>Contract</td>
<td>$20,786,868</td>
<td>067641697</td>
<td>GENERAL DYNAMICS INFORMATION TECHNOLOGY, INC.</td>
<td>1381284</td>
<td>W9000K19F0142</td>
<td>DEPARTMENT OF DEFENSE</td>
</tr>
<tr>
<td>Contract</td>
<td>$20,786,868</td>
<td>067641697</td>
<td>GENERAL DYNAMICS INFORMATION TECHNOLOGY, INC.</td>
<td>1381284</td>
<td>W9000K19F0142</td>
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<tr>
<td>Contract</td>
<td>$20,118,427</td>
<td>809068661</td>
<td>TECH SYSTEMS, INC.</td>
<td>809068661</td>
<td></td>
<td>DEPARTMENT OF DEFENSE</td>
</tr>
</tbody>
</table>
3.6 Small Business

This link brings you to a new page, which provides an overview of small business set-aside categories with links to the U.S. Small Business Administration (SBA) website for more information and a chart showing small business awards in Hawaii over the last five years (see Figure 10).

The page also provides an interactive report to find potential partners in certain special set-aside categories based on contract awards in Hawaii. Select a special category in Box A, a 6-digit NAICS code in Box B, or a state where the organization/business is physically located, e.g. HI for Hawaii based companies (Box C). A list of organizations/businesses will appear in Box D that have received prime contract awards over the last 12 months. If you select a specific organization/business in Box D, a list of that entity’s contracts will appear in Section E (see Figure 11).

Figure 10

Small Business Awards in Hawaii

Figure 11

A. Search by One or More Special Categories

<table>
<thead>
<tr>
<th>Category</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ba Participant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alaskan Native Owned</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Ameri. Indian Owned</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Asian-Indian Amer. Owned</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Asia Pacific Amer. Owned</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Black Amer. Owned</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Educational Institute</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Emerging Small Business</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Fed Govt</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Hispanic Amer. Owned</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Hospital</td>
<td></td>
<td></td>
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<tr>
<td>Hub Zone</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Local Govt</td>
<td></td>
<td></td>
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<tr>
<td>Minority Owned Business</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Native Amer. Owned</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Native Hawaiian Owned</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Non-Profit</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Service Disable Vet Owned</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Small Disadv. Business</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>State Govt</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Tribal Govt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Veteran Owned</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Woman Owned</td>
<td>No</td>
<td>Yes</td>
</tr>
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</table>

B. Search by NAICS

<table>
<thead>
<tr>
<th>NAICS</th>
<th>All</th>
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</thead>
</table>

C. Select State

<table>
<thead>
<tr>
<th>State</th>
<th></th>
</tr>
</thead>
</table>

D. Company Info

<table>
<thead>
<tr>
<th>Obligation</th>
<th>recipient_duns</th>
<th>recipient_name</th>
<th>recipient_parent_duns</th>
<th>Address_line_1</th>
<th>City</th>
<th>State</th>
<th>ZIP</th>
<th>URL</th>
</tr>
</thead>
</table>

Figure 11

$1.2bn
4.0 Building Resiliency

This tab provides resources for Hawaii businesses seeking information on doing business in Hawaii with the DoD.

➢ **Small Business Resources:** Provides link to small business page, which includes descriptions and contact information for federal and state organizations that can help Hawaii small businesses (*Described in the previous section – Small Business*).

➢ **Cybersecurity Requirements:** Summarizes Cybersecurity requirements that contractors must implement in order to do business with the DoD in Hawaii. ([Link](#))

➢ **Partners:** Provides links to the websites of important HDE partners.

5.0 Economic Impact

This tab provides eight reports that provide more advanced analytical insights into defense spending trends and the related economic impact to Hawaii.
5.1 State/ County Spending

This interactive report provides a summary of estimated spending (prime/ assistance contracts and reported sub-contract/ sub-grant awards), jobs, and economic impact for the most recent 12 months. It also provides the percentage of DoD Dependency using estimated DoD jobs (not including DoD active, reserve, or civilian personnel) divided by total employment for the county or state. The DoD Dependency metric is conditionally formatted based on the percentage of dependency between 0 and 10% (representing highly dependent) – the color changes from light gray to dark red between this spectrum (0% to 10%). To filter the results, you can click on the county in the mapping interface. You can hover over the county to see summarized information. The bar chart in Box A provides summary annual net dollar flows for each county and the state overall (see Figure 12).

Figure 12

![State of Hawaii map and bar chart showing net dollar flows by year](image)
5.2 Top Products & Services

This report shows the net dollar flows by year for the Top 25 Product Service Codes (PSCs) in Tab 1 and Top 20 two and six-digit North American Industry Classification System (NAICS) codes in Tab 2. In Tab 1, Box A shows Hawaii’s top PSCs for prime contracts only. Use boxes B, C, and D to refine your search to particular years, counties, and awarding sub agencies. In Tab 2, Box A shows Hawaii’s top NAICS codes for contracts and sub-contracts. Select a two-digit NAICS code to view the corresponding Top six-digit NAICS. Use boxes B, C, and D to refine your search (see Figure 13).
5.3 Industry Trends

This report shows the amount of spending by six-digit NAICS year-over-year (Box F). Use Boxes A, B, or C to filter on industry categories. Use the slider bar or text boxes in Box D to filter on a range of trend rates estimated for the next 12 months using a 5-year linear regression trend, e.g., minimum percentage allowable to -5% or 5% to maximum percentage available. Similarly, use the slider in Box E to select a range of total net dollar flows for the most recent 12-month period, e.g., $50M to maximum value available in slider bar. Box G provides contract details related to filters selected (see Figure 14).

Figure 14
5.4 What-If Analysis

This report shows the estimated impact on jobs and economic impact based on changes in spending. Use the slider in Box A to select a percentage increase/decrease or enter an exact percentage value in the text box. Use Box B to filter the “What-If” impact related to a specific awarding sub agency. Similarly, Use Boxes C and D to select a specific three-digit and/or six-digit NAICS code to filter the impact of the change on a specific industry (see Figure 15).
5.5 Set-Aside Growth

This report shows year-over-year trends in the dollar value of set aside contracts. The report can be filtered by category (Box B), sub awarding agency (Box C), and NAICS (Box D). By hovering over the line chart, you can see the dollars obligated per year by category selected (see Figure 16).

![Figure 16](image_url)
5.6 Sub-Award Growth

This data tool helps uncover the relationships in the supply chain between the DoD awarding sub agencies, prime contractors, and sub-award organizations. Select an organization in Box B to show the prime and subaward Dollar flows in Box A. Hold the keyboard’s “Ctrl” key down to select more than one organization. Box C can be used to filter on relationship type, e.g. agency to prime (Prime), prime to subcontractor (Sub-Contract or Sub-Grant). Note: This data tool only shows prime contractor self-reported data from USASpending.gov. It does not include all Hawaii prime contract awards. The sub award data is a small, but important subset of the overall spending (see Figure 17).

![Figure 17](image-url)
5.7 Sub-Award Details

This data tool shows more details about specific prime awardees and their subcontracts. Choose a prime contractor from Box A or D (Source) to filter the subcontract details in Box E, which include amount, subcontractor (Destination), year, and place of performance state. Use Box B to filter on a specific year and Box C to filter on a specific state where the subcontract is being performed (see Figure 18).

Figure 18
5.8 Leakage Analysis

This report shows total subcontract dollars flowing into and out of the state ("Leakage") over the last 12 months in the first two text boxes, followed by the difference between the flows (net subcontractor flow) in the third box. The last two boxes provide an estimate of net jobs and economic output resulting from the net subcontractor flow. The three economic indicator boxes from the right are conditionally formatted based on the values above and below zero – red color intensity is based on subcontract dollar flows leaving Hawaii from in-state prime contractors (<$0 to -$100M) and green color for subcontractor flows coming into the state from prime contractors located outside of Hawaii (>0 to $100M).

Use the TreeMap in Box A to select a state to view the specific six-digit NAICS codes in Box B and contract details in Box E related to the out-of-state flows. Alternatively, select a NAICS code in Box B to see the related states in Box A and contract details in Box E. Box C provides an annual view of net flows, and Box D identifies the Top 5 prime contractors with the highest flows out of the state (see Figure 19).
6.0 Data Tools, Data Methodology & Terminology

6.1 Data Tools

This tab provides another means to quickly access any of the reports provided in the Spending Insights and Economic Impact tabs.

6.2 Defense Spending Methodology

All contract data are from USASpending.gov and include: 1) prime contract and assistance awards the federal government made to private- and public-sector contractors; and 2) prime contractor reported subcontract and subgrant awards that prime award recipients provided to subcontractors/sub-grantees. Contracts are the principle method through which the DoD and other federal agencies spend money. The phrase “contract spending” reflects federal agencies’ use of contracts with suppliers to purchase all products and services over a legally specified micro-purchase threshold.

For prime contract and assistance awards, the Hawaii Defense Economy website data only includes Hawaii as the place of performance and awarding agency codes for DoD, General Services Administration (GSA), or awarding subagency United States Coast Guard (USGC), which is this website’s scope of defense-related spending. Annual periods are created based on a refresh date that considers the 90-day blackout period for DoD contract awards for operational security reasons. Rolling 12-month periods are established using this refresh date. This approach decouples from fiscal year reporting, facilitating comparisons across annual periods with equal numbers of days.

Example: If the refresh date is 31 March 2020, then the 1st annual period would be 2 April 2019 through 31 March 2020, and the 2nd annual period would be 2 April 2018 through 1 April 2019 (Note: 2020 has 366 days).

The analysis apportions prime contract obligation and assistance amounts to these annual periods based on the lower of period of performance in days of the contract or 365 days. The period of performance is determined by the difference between the action date and the period of performance current end date. De-obligations, indicated by a negative amount, are not apportioned across annual periods, but rather are taken in the period matching the action date.

Example: If the action data is 3 March 2019 and the current end date is 1 July 2019, then the period of performance would be 120 days, and an obligation of $100,000 for the rolling annual periods for Year 2 (2 April 2018 through 1 April 2019) and Year 1 (2 April 2019 through 31 March 2020) would be apportioned 25% or $25,000 for Year 2 and 75% or $75,000 for Year 1.
For prime contractor reported subcontract and subgrant award data, the analysis only includes records with the reporting prime or the recipient subcontractor/subgrantee having a place of performance as Hawaii.

**Example:** This would include a prime contractor with a place of performance outside of Hawaii reporting a subcontract with a place of performance inside of Hawaii. Similarly, the reporting prime contractor could have a place of performance inside of Hawaii and the recipient subcontractor could have a place of performance outside of Hawaii.

A different approach was used to allocate sub-award/sub-grant awards to the rolling annual periods because, unlike prime award records, subawards do not list the beginning and end of a sub-award’s period of performance.

### 6.3 Job & Economic Output Estimation Methodology

The analysis matches the U.S. Bureau of Economic Analysis (BEA)’s RIMS II Type II multipliers for Honolulu to the NAICS reported in the contract and subcontract data (this field is not available for assistance awards) at various NAICS levels due to incomplete industry multipliers at the six-digit level. Type II Multipliers account for both the interindustry effects (direct and indirect) and household-spending effects (induced) of a final-demand change. Two Type II Multipliers are used in the analysis: 1) Final-demand Employment and 2) Final-demand Output.

- **Final-demand Employment:** Represents the total change in number of jobs that occurs in all industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

- **Final-demand Output:** Represents the total dollar change in output that occurs in all industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

### 6.4 Key Terminology

- **Net Dollar Flows:** Sum of Prime Contract Obligations flowing into the state + Sum of Subcontract Awards flowing into the state from Out-of-State Primes - Sum of Subcontract Awards flowing out of the state from In-State Primes.

- **Net Jobs:** Sum of Estimated Jobs flowing into the state from Prime Contract Obligations + Sum of Estimated Jobs flowing into the state from Subcontract Awards from Out-of-State Primes - Sum of Estimated Jobs flowing out of the state from Subcontract Awards from In-State Primes. Job estimates are based on the Final-demand Employment multipliers.

- **Net Economic Output (Impact)**: Sum of estimated economic output flowing into the state from Prime Contract Obligations + Sum of Economic Output flowing into the state from Subcontract Awards flowing into the state from Out-of-State Primes - Sum of Economic Output flowing out of the state from Subcontract Awards from In-State Primes.
Awards from Out-of-State Primes - Sum of Economic Output flowing out of the state from Subcontract Awards from In-State Primes. Economic Output estimates are based on the Final-demand Output multipliers.

- **DoD Dependency**: Analysis’ scope of defense related net dollar flows divided by total employment by state or county.

- **Net Subcontractor Flows**: Sum of subcontractor awards from primes with a place of performance *outside* of Hawaii to subcontractors with a place of performance *in* the state - Sum of subcontractor awards from primes with a place of performance *inside* Hawaii to subcontractors with a place of performance *out* of the state.

- **Net Subcontractor Jobs**: Sum of estimated jobs from subcontractor awards from primes with a place of performance *outside* of Hawaii to subcontractors with a place of performance *in* the state - Sum of estimated jobs from subcontractor awards from primes with a place of performance *inside* Hawaii to subcontractors with a place of performance *out* of the state.

- **Net Subcontractor Economic Output (Impact)**: Sum of estimated economic impact from subcontractor awards from primes with a place of performance *outside* of Hawaii to subcontractors with a place of performance *in* the state - Sum of economic impact from subcontractor awards from primes with a place of performance *inside* Hawaii to subcontractors with a place of performance *out* of the state.

- **Leakage**: Sum of dollar flows awarded to subcontractors with place of performance *outside* of Hawaii from primes with a place of performance *inside* Hawaii.

### 6.5 Index

- **Defense in Hawaii**: Provides an overview of the military presence in Hawaii, and its strategic and economic significance.
  - **Past and Present**: A brief history of Hawaii’s long military presence. ([Link](#))
  - **News**: Hawaii defense-related news stories and articles. ([Link](#))
  - **Key Installations**: Top military installations in Hawaii that have important economic impacts on the islands within the state. ([Link](#))
    - Pacific Missile Range Facility ([PMRF](#))
    - Kauai, Pearl Harbor Naval Shipyard ([PHNSY](#))
    - Tripler Army Medical Center ([TAMC](#))
  - **Military Branches**: Overview of the personnel, key commands and facilities for each branch of service located in Hawaii. ([Link](#))

- **Spending Insights**: Provides four defense-related spending reports. ([Link](#))
- **Agency Flows to Top Industry Segments**: Shows how money flows from awarding sub agencies to the Top 5 industry segments (NAICS and PSC). (Link)

- **Net Dollar Flows by Awarding Sub Agency**: Shows the net dollar flows by Awarding Sub Agency. (Link)

- **Spending Explorer**: Provides a wide variety of filters to explore defense spending. (Link)

- **Business Map**: Provides a wide variety of filters to explore defense spending. (Link)

- **Top Contractors**: Provides a report of the Top HDE contractors. (Link)

- **Small Business**: Provides an overview of small business set-aside categories and a report of small business awards in Hawaii. (Link)

- **Economic Impact**: Provides eight reports that provide more advanced analytical insights into defense spending trends and the related economic impact to Hawaii. (Link)

  - **State/ County Spending**: Summarizes estimated spending, jobs, economic impact, and DoD dependency by county or at the state level for the most recent 12 months. (Link)

  - **Top Products & Services**: Shows the net dollar flows by year for the top Product Service Codes (PSCs) and North American Industry Classification System (NAICS) codes. (Link)

  - **Industry Trends**: Provides amount of spending by six-digit NAICS year-over-year. (Link)

  - **What-If Analysis**: Estimates impact on jobs and economic impact based on changes in spending. (Link)

  - **Set-Aside Growth**: Shows year-over-year trends in the dollar value of set aside contracts. (Link)

  - **Sub-Award Growth**: Uncovers supply chain relationships between the DoD awarding sub agencies, prime contractors, and sub-award organizations. (Link)

  - **Sub-Award Details**: Details specific prime awardees and their subcontracts. (Link)

  - **Leakage Analysis**: Provides various analytics related to total subcontract dollars flowing into and out of the state ("Leakage") over the last 12 months. (Link)