



HAWAII DEFENSE ECONOMY
*Second largest sector of Hawaii's
economy*

Phase II HDE Website User Guide

Version 1.1

Date: November 30th, 2020



STATE OF HAWAII • DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

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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.



PEARL HARBOR, Hawaii - Multinational navy ships and a submarine steam in formation during a group sail off the coast of Hawaii as part of exercise Rim of the Pacific (RIMPAC) 2020. Photo By: Petty Officer 3rd Class Jenna Do.

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/igphoto/2001870826/>

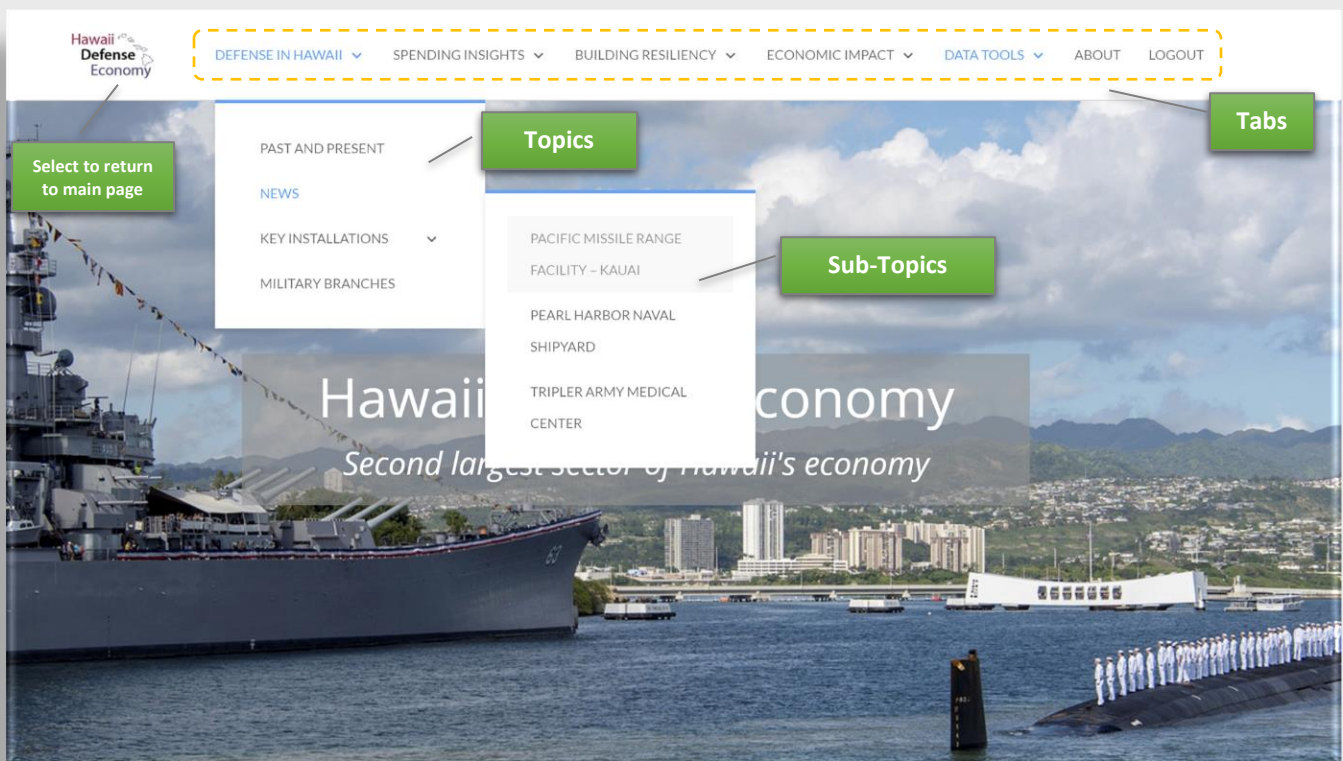
1.1 Website Navigation

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](#)
- [Economic Impact](#)
- [Login](#)
- [Spending Insights](#)
- [Data Tools](#)
- [Building Resiliency](#)
- [About](#)

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



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.

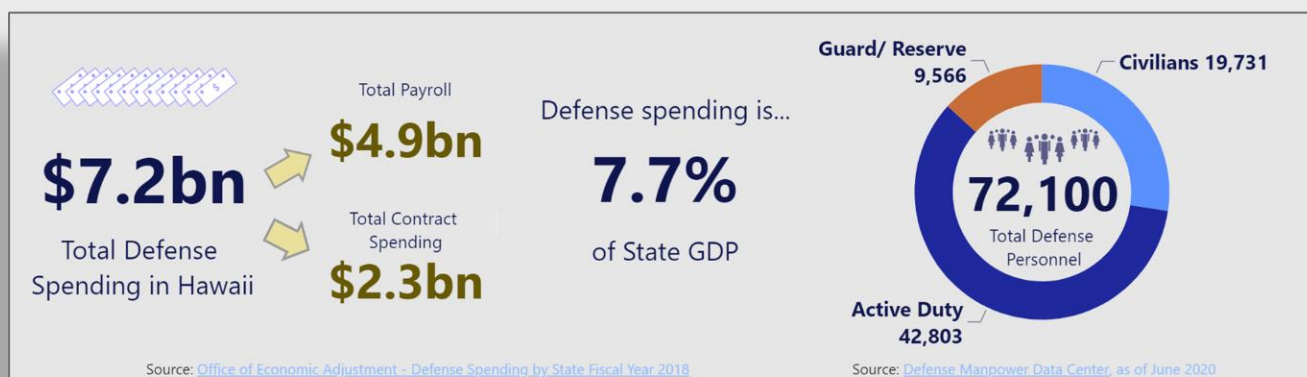
1.3 HDE At-a-Glance Report

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



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*).

Figure 3



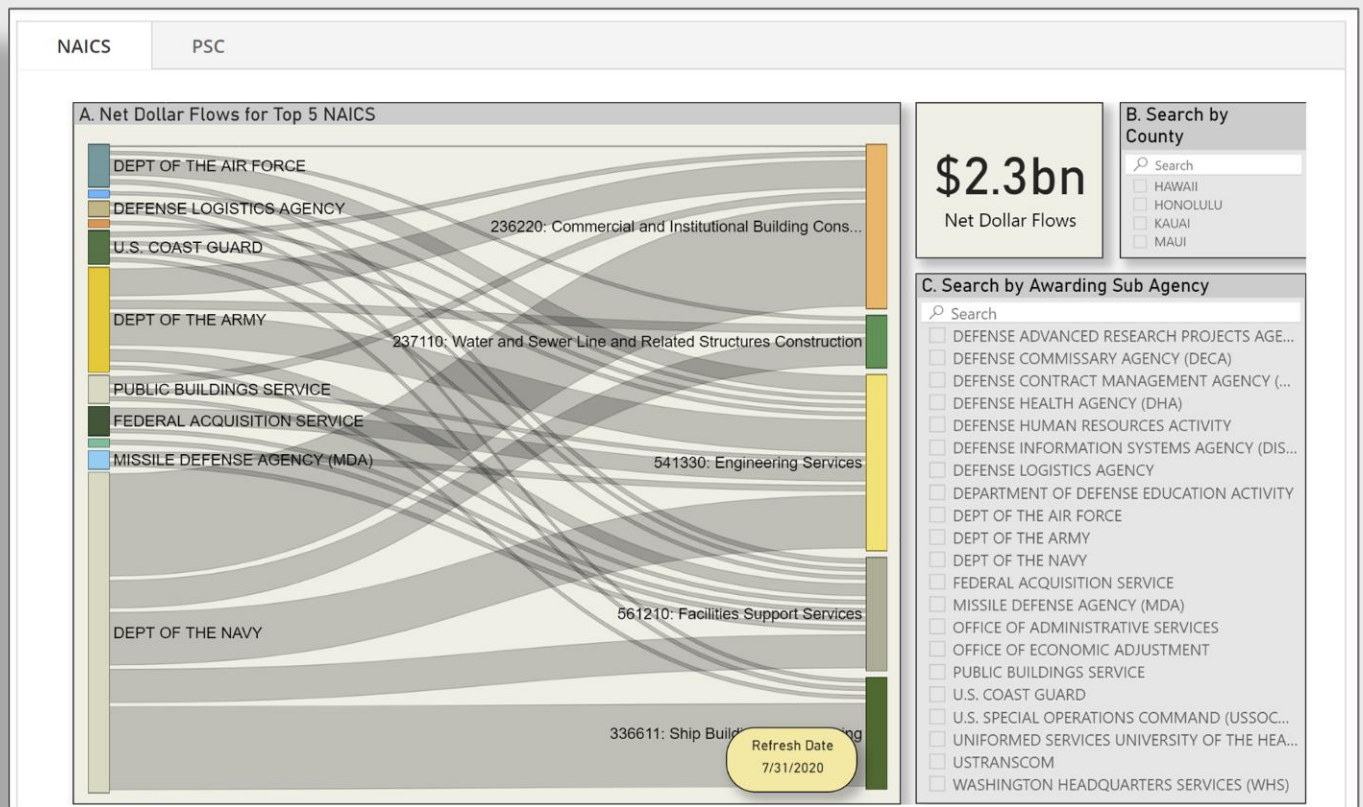
3.0 Spending Insights

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*).

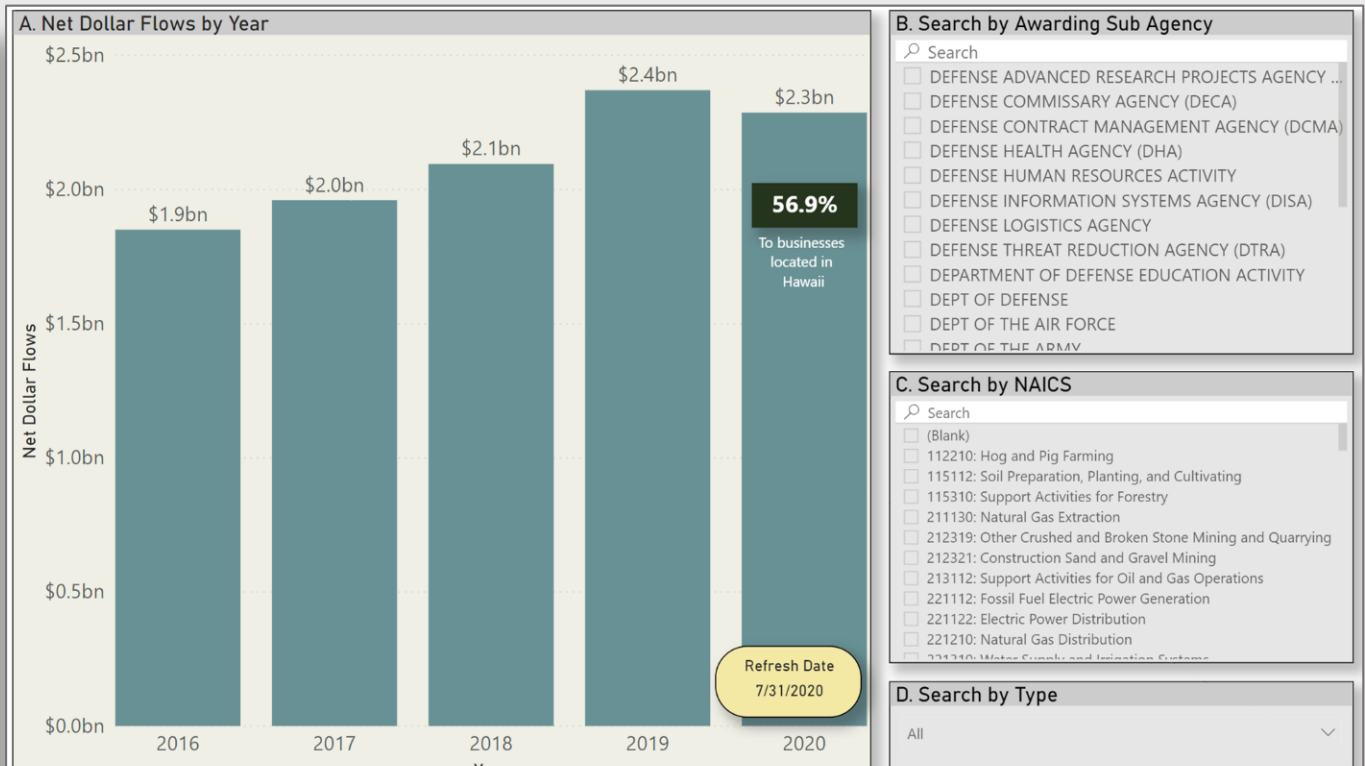
Figure 4



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*).

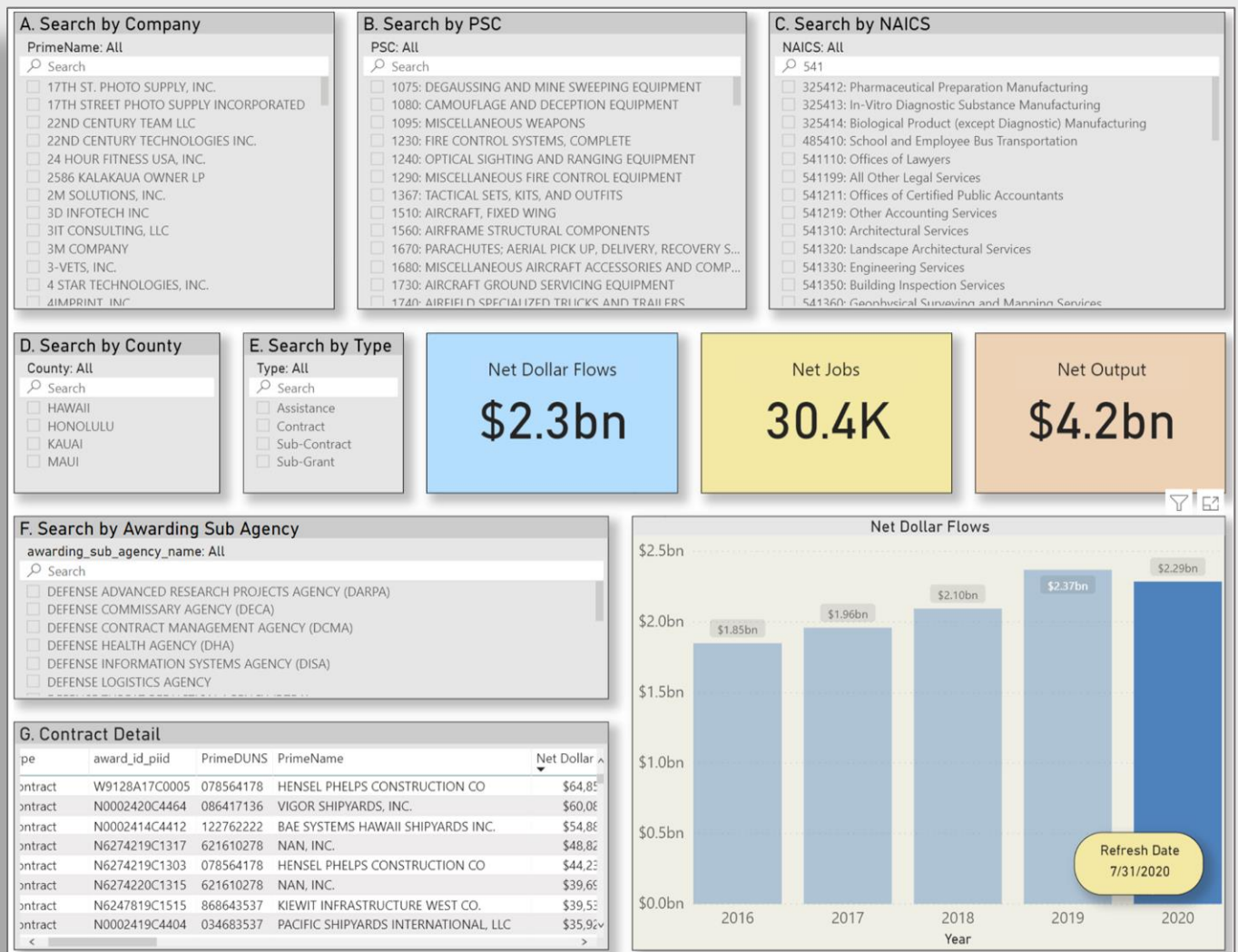
Figure 5



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*).

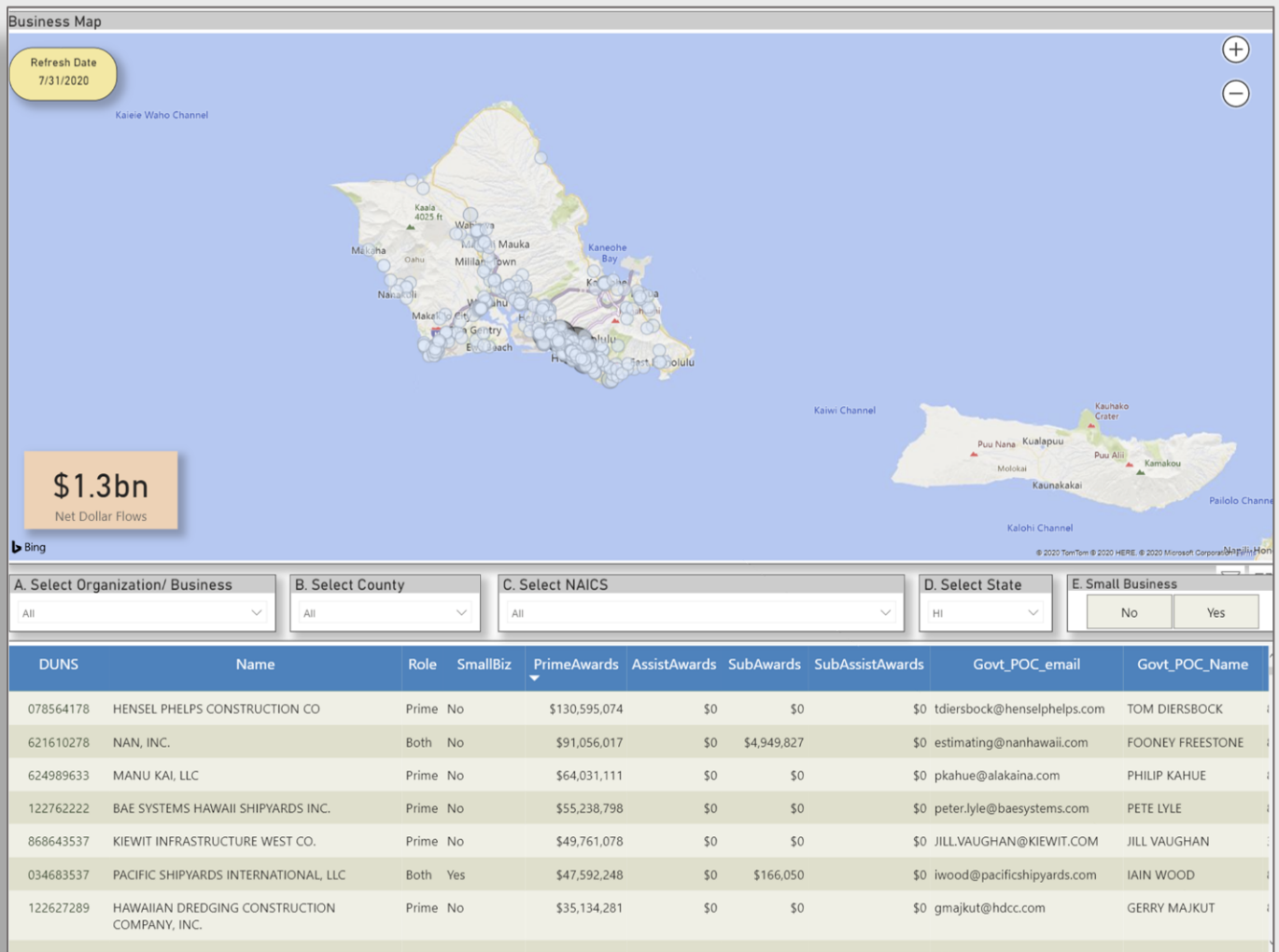
Figure 6



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*).

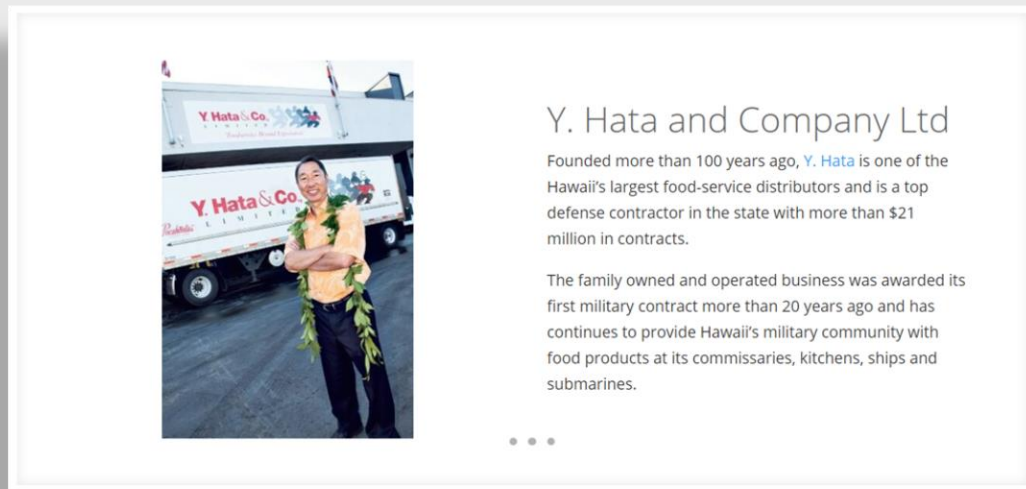
Figure 7



3.5 Top Contractors

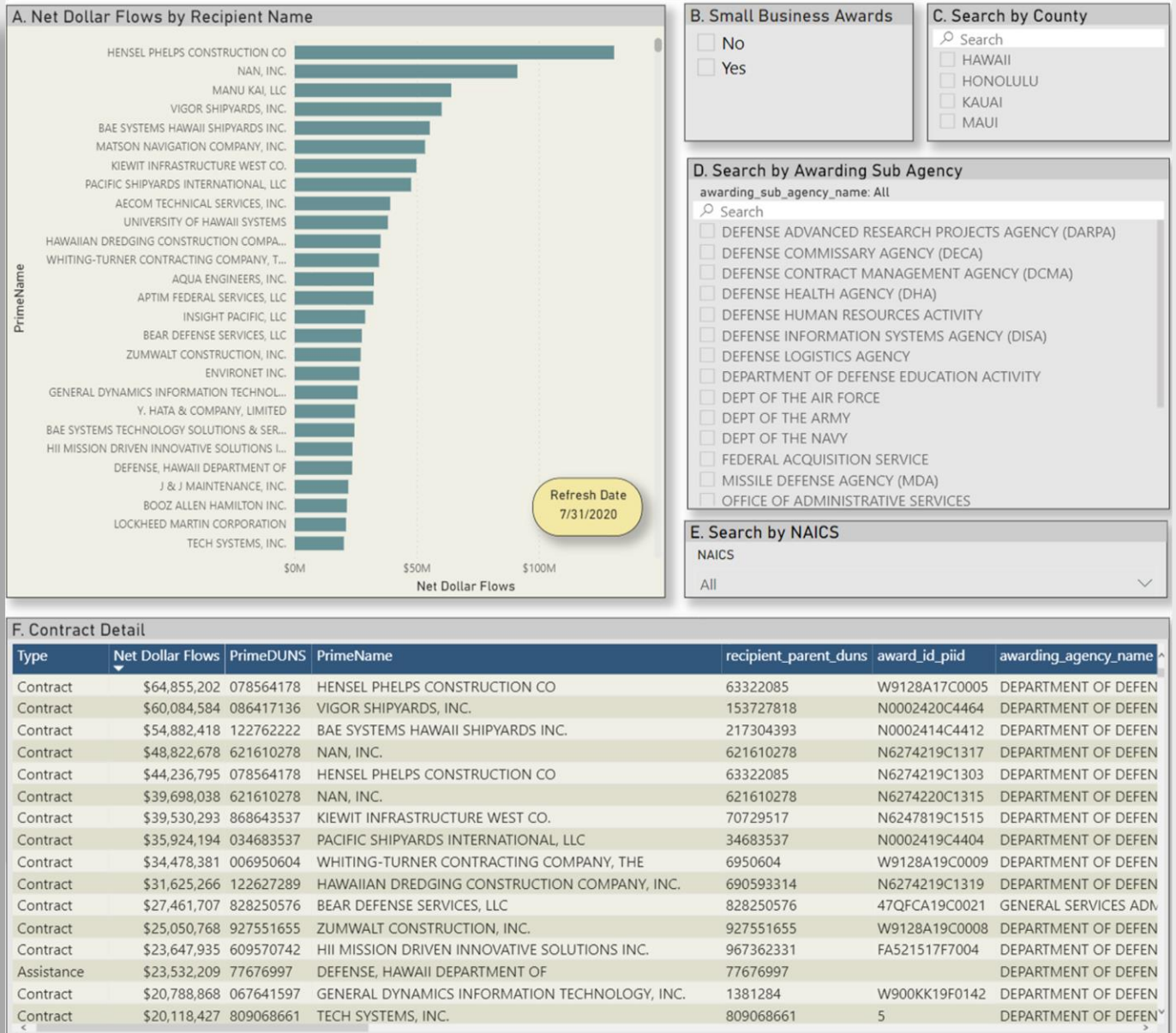
This [link](#) brings you to a new page, which highlights important HDE businesses and provides a report of the Top HDE contractors in descending order by net dollar flows (see Figures 8 and 9).

Figure 8



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



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

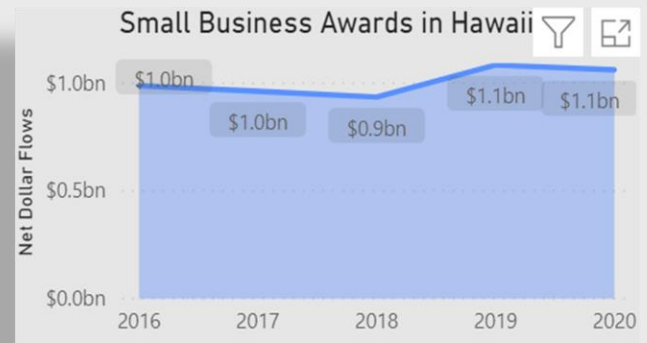


Figure 11

A. Search by One or More Special Categories

8a Participant	<input type="checkbox"/> No <input type="checkbox"/> Yes	Fed Govt	<input type="checkbox"/> No <input type="checkbox"/> Yes	Non-Profit	<input type="checkbox"/> No <input type="checkbox"/> Yes
Alaskan Native Owned	<input type="checkbox"/> No <input type="checkbox"/> Yes	Hispanic Amer. Owned	<input type="checkbox"/> No <input type="checkbox"/> Yes	Service Disable Vet Owned	<input type="checkbox"/> No <input type="checkbox"/> Yes
Ameri. Indian Owned	<input type="checkbox"/> No <input type="checkbox"/> Yes	Hospital	<input type="checkbox"/> No <input type="checkbox"/> Yes	Small Disadv. Business	<input type="checkbox"/> No <input type="checkbox"/> Yes
Asian-Indian Amer. Owned	<input type="checkbox"/> No <input type="checkbox"/> Yes	Hub Zone	<input type="checkbox"/> No <input type="checkbox"/> Yes	State Govt	<input type="checkbox"/> No <input type="checkbox"/> Yes
Asia Pacific Amer. Owned	<input type="checkbox"/> No <input type="checkbox"/> Yes	Local Govt	<input type="checkbox"/> No <input type="checkbox"/> Yes	Tribal Govt	<input type="checkbox"/> No
Black Amer. Owned	<input type="checkbox"/> No <input type="checkbox"/> Yes	Minority Owned Business	<input type="checkbox"/> No <input type="checkbox"/> Yes	Veteran Owned	<input type="checkbox"/> No <input type="checkbox"/> Yes
Educational Institute	<input type="checkbox"/> No <input type="checkbox"/> Yes	Native Amer. Owned	<input type="checkbox"/> No <input type="checkbox"/> Yes	Woman Owned	<input type="checkbox"/> No <input type="checkbox"/> Yes
Emerging Small Business	<input type="checkbox"/> No <input type="checkbox"/> Yes	Native Hawaii Owned	<input type="checkbox"/> No <input type="checkbox"/> Yes		

Refresh Date: 7/31/2020

B. Search by NAICS

NAICS: All

C. Select State

State: HI

\$1.2bn

D. Company Info

Obligation	recipient_duns	recipient_name	recipient_parent_duns	Address_Line_1	City	State	Zip	URL
\$130,595,074	078564178	HENSEL PHELPS CONSTRUCTION CO	63322085	841 BISHOP ST STE 2001	HONOLULU	HI	96813	
\$91,056,017	621610278	NAN, INC.	621610278	636 LAUMAKA ST	HONOLULU	HI	96819	
\$64,031,111	624989633	MANU KAI, LLC	4203337	1600 KAPIOLANI BLVD STE 530	HONOLULU	HI	96814	
\$55,238,798	122762222	BAE SYSTEMS HAWAII SHIPYARDS INC.	217304393	3049 UALENA ST STE 915	HONOLULU	HI	96819	
\$49,761,078	868643537	KIEWIT INFRASTRUCTURE WEST CO.	70729517	707 RICHARDS ST STE 750	HONOLULU	HI	96813	
\$47,605,672	034683537	PACIFIC SHIPYARDS INTERNATIONAL, LLC	34683537	705 N NIMITZ HWY	HONOLULU	HI	96817	
\$35,134,281	122627289	HAWAIIAN DREDGING CONSTRUCTION COMPANY, INC.	690593314	605 KAPIOLANI BLVD	HONOLULU	HI	96813	
\$32,362,850	007182967	AQUA ENGINEERS, INC.	7182967	3560 KOLOA RD	KALAHEO	HI	96741	
\$26,491,008	114613644	ENVIRONET INC.	114613644	64-705 WAIKELEHUA PLACE	KAMUELA	HI	96743	
\$24,617,673	007977770	Y. HATA & COMPANY, LIMITED	7977770	285 SAND ISLAND ACCESS RD	HONOLULU	HI	96819	http://www.yhata.com
\$20,803,346	610401655	NAVATEK LLC	9237124	841 BISHOP ST STE 1110	HONOLULU	HI	96813	http://www.navatekltd.com
\$18,883,381	144540283	OCEANIT LABORATORIES, INC.	144540283	828 FORT STREET MALL STE 600	HONOLULU	HI	96813	http://www.oceanit.com

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.

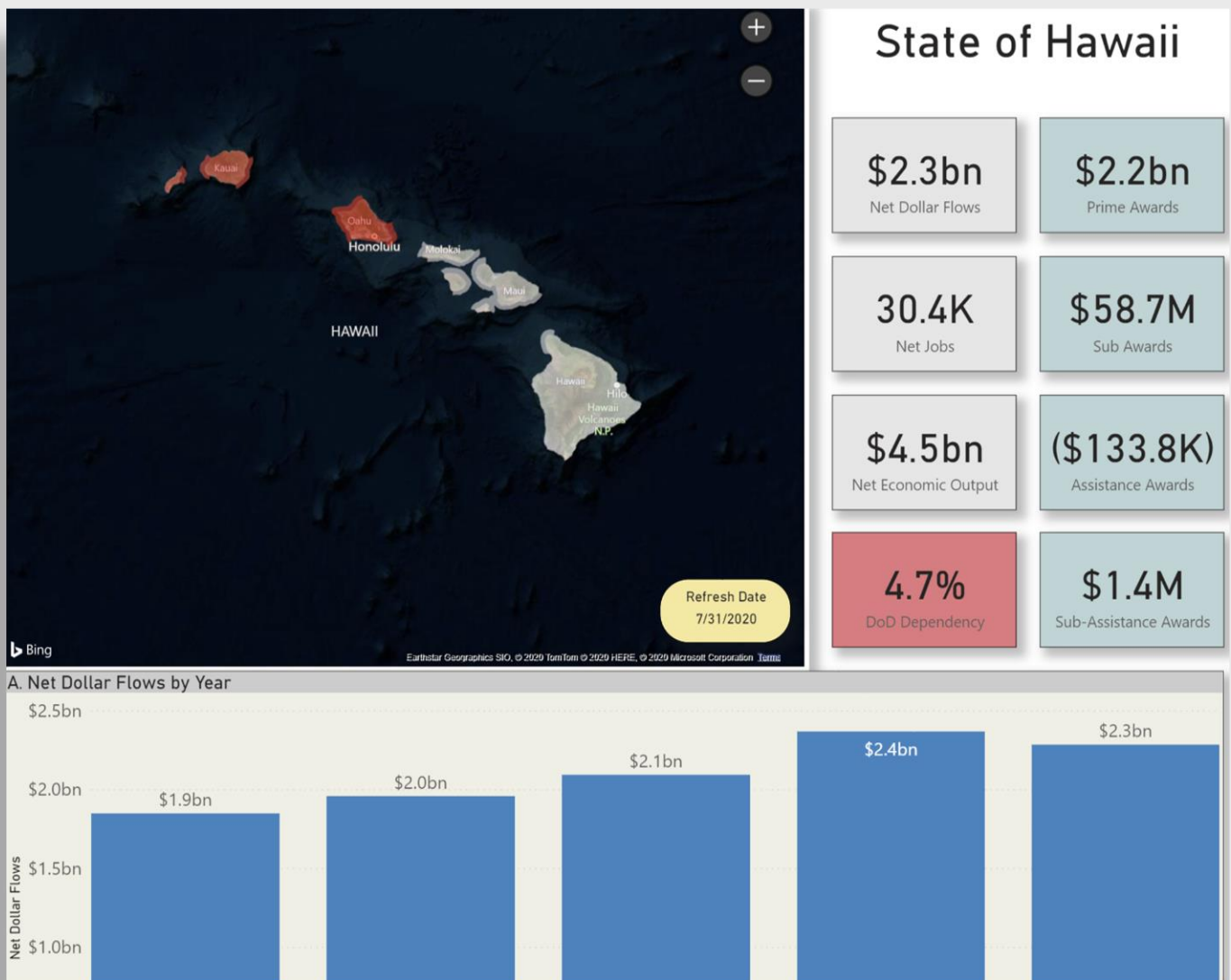
5.0 Economic Impact

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*).

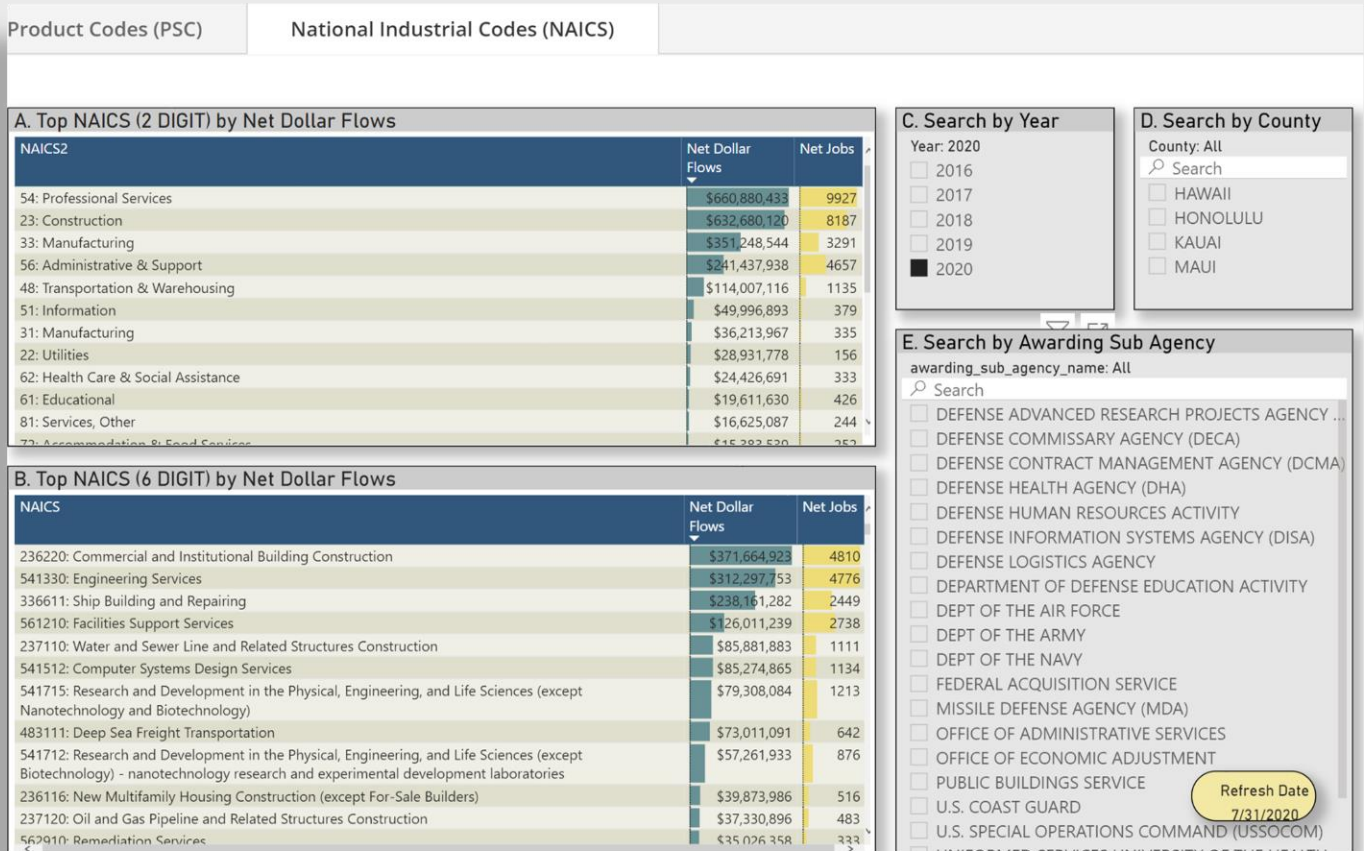
Figure 12



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*).

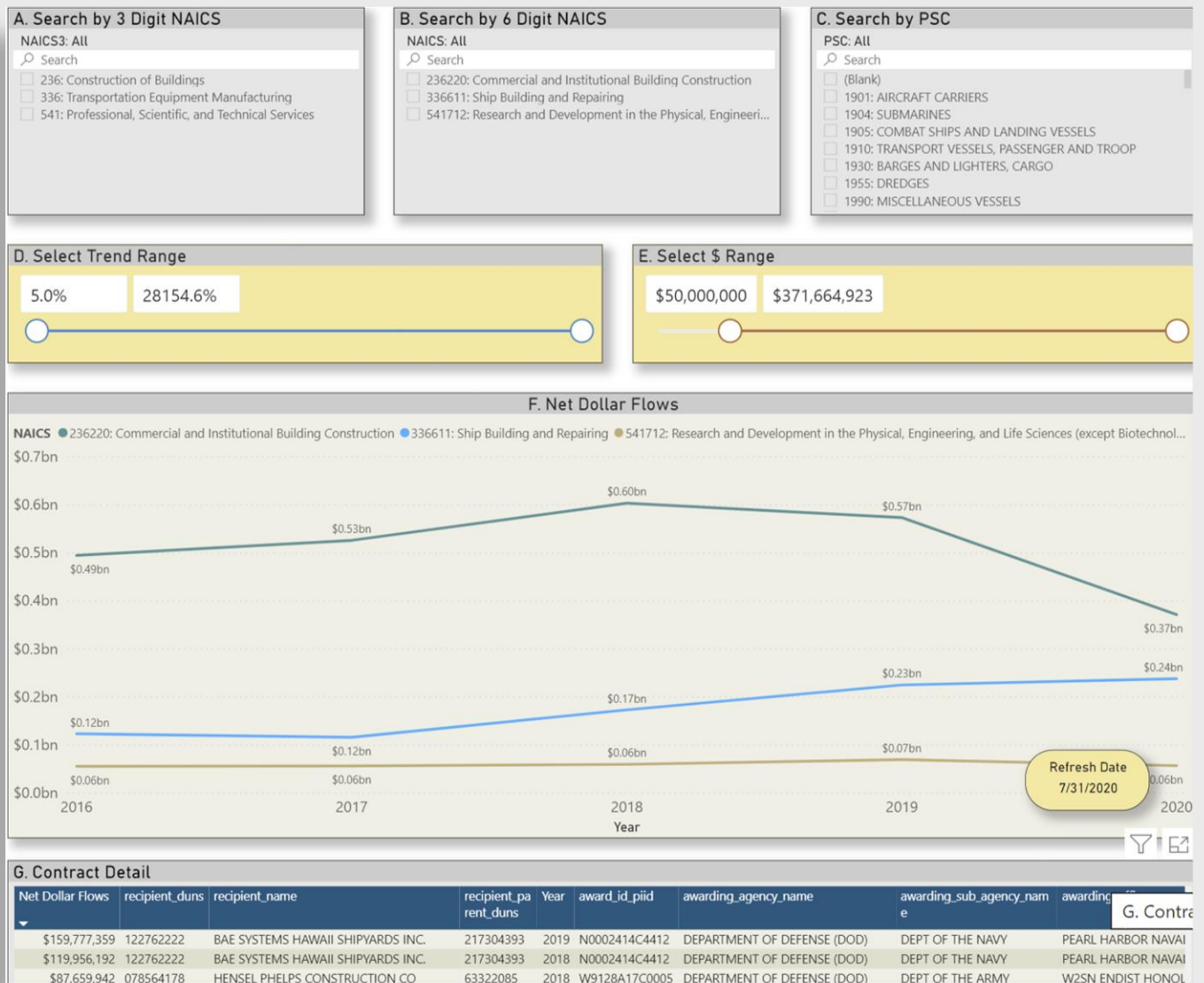
Figure 13



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).

Figure 15

\$2.3bn

Net Dollar Impact

30.4K

Job Impact

\$4.2bn

Economic Output Impact

A. Select Percent Change in Net Dollar Flows

○

-100%
0%
+100%

B. Select Awarding Sub Agency

- ☐ DEFENSE ADVANCED RESEARCH PROJECTS AGEN...
- ☐ DEFENSE COMMISSARY AGENCY (DECA)
- ☐ DEFENSE CONTRACT MANAGEMENT AGENCY (D...
- ☐ DEFENSE HEALTH AGENCY (DHA)
- ☐ DEFENSE HUMAN RESOURCES ACTIVITY
- ☐ DEFENSE INFORMATION SYSTEMS AGENCY (DISA)
- ☐ DEFENSE LOGISTICS AGENCY
- ☐ DEPARTMENT OF DEFENSE EDUCATION ACTIVITY
- ☐ DEPT OF THE AIR FORCE
- ☐ DEPT OF THE ARMY
- ☐ DEPT OF THE NAVY
- ☐ FEDERAL ACQUISITION SERVICE
- ☐ MISSILE DEFENSE AGENCY (MDA)
- ☐ OFFICE OF ADMINISTRATIVE SERVICES

C. 3 Digit NAICS

NAICS3	Net Dollar Flows	Net Jobs	Net Output
541: Professional, Scientific, and Technical Services	\$660,880,433	9927	\$1,273,521,171
236: Construction of Buildings	\$424,425,456	5492	\$797,792,530
336: Transportation Equipment Manufacturing	\$240,442,296	2449	\$413,339,020
561: Administrative and Support Services	\$193,222,565	4198	\$374,561,942
237: Heavy and Civil Engineering Construction	\$182,069,583	2356	\$342,236,194
334: Computer and Electronic Product Manufacturing	\$77,937,015	585	\$113,797,819
483: Water Transportation	\$74,464,405	655	\$148,697,970
562: Waste Management and Remediation Services	\$48,215,373	459	\$86,252,480
517: Telecommunications	\$44,130,438	331	\$77,348,881
311: Food Manufacturing	\$34,155,268	285	\$55,085,617
221: Utilities	\$28,931,778	156	\$44,366,882
238: Specialty Trade Contractors	\$26,185,081	339	\$49,220,097
488: Support Activities for Transportation	\$19,741,961	313	\$41,501,550

D. 6 Digit NAICS

NAICS	Net Dollar Flows	Net Jobs	Net Output
236220: Commercial and Institutional Building Construction	\$371,664,923	4810	\$698,618,555
541330: Engineering Services	\$312,297,753	4776	\$604,858,289
336611: Ship Building and Repairing	\$238,161,282	2449	\$411,066,373
561210: Facilities Support Services	\$126,011,239	2738	\$244,272,787
237110: Water and Sewer Line and Related Structures Construction	\$85,881,883	1111	\$161,432,175
541512: Computer Systems Design Services	\$85,274,865	1134	\$158,150,765
541715: Research and Development in the Physical, Engineering, and Life Sciences (except Nanotechnology and Biotechnology)	\$79,308,084	1213	\$153,603,897
483111: Deep Sea Freight Transportation	\$73,011,091	642	\$145,795,848
	\$58,473,792	704	\$51,511,551
541712: Research and Development in the Physical, Engineering, and Life Sciences (except Biotechnology) - nanotechnology research and experimental development laboratories	\$57,261,933	876	\$51,511,551

Refresh Date
7/31/2020

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).

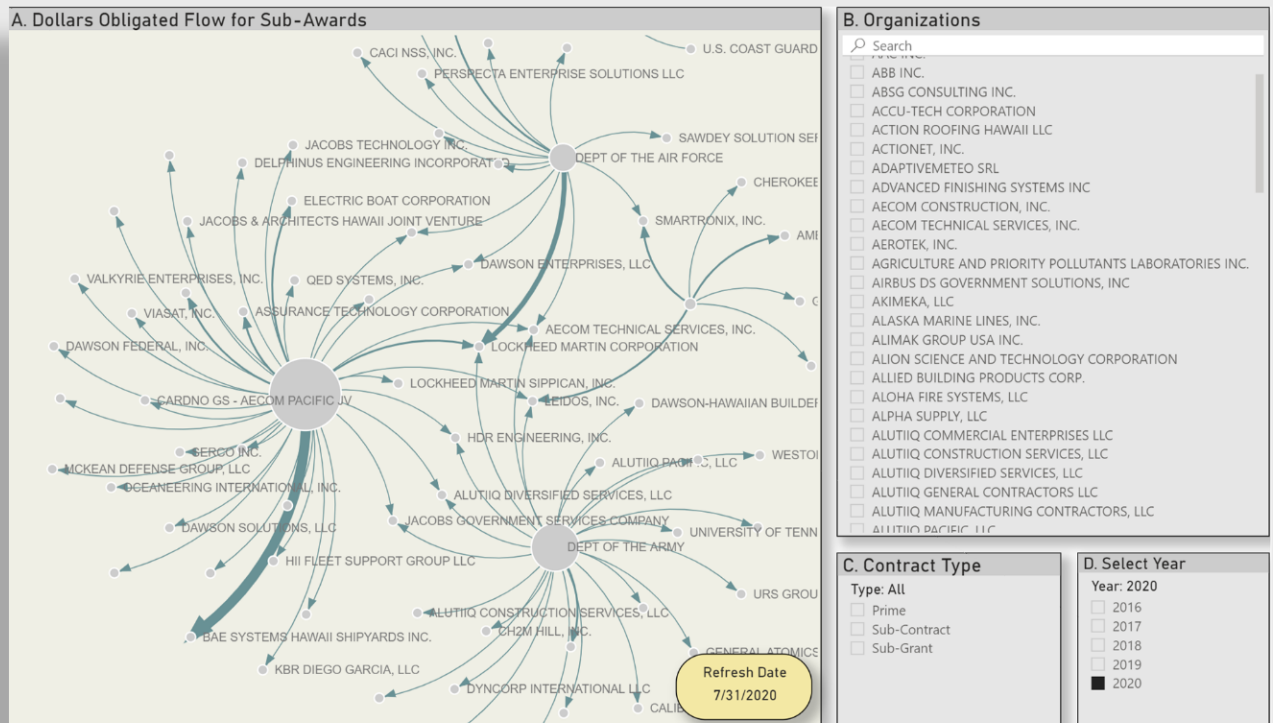
Figure 16



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*).

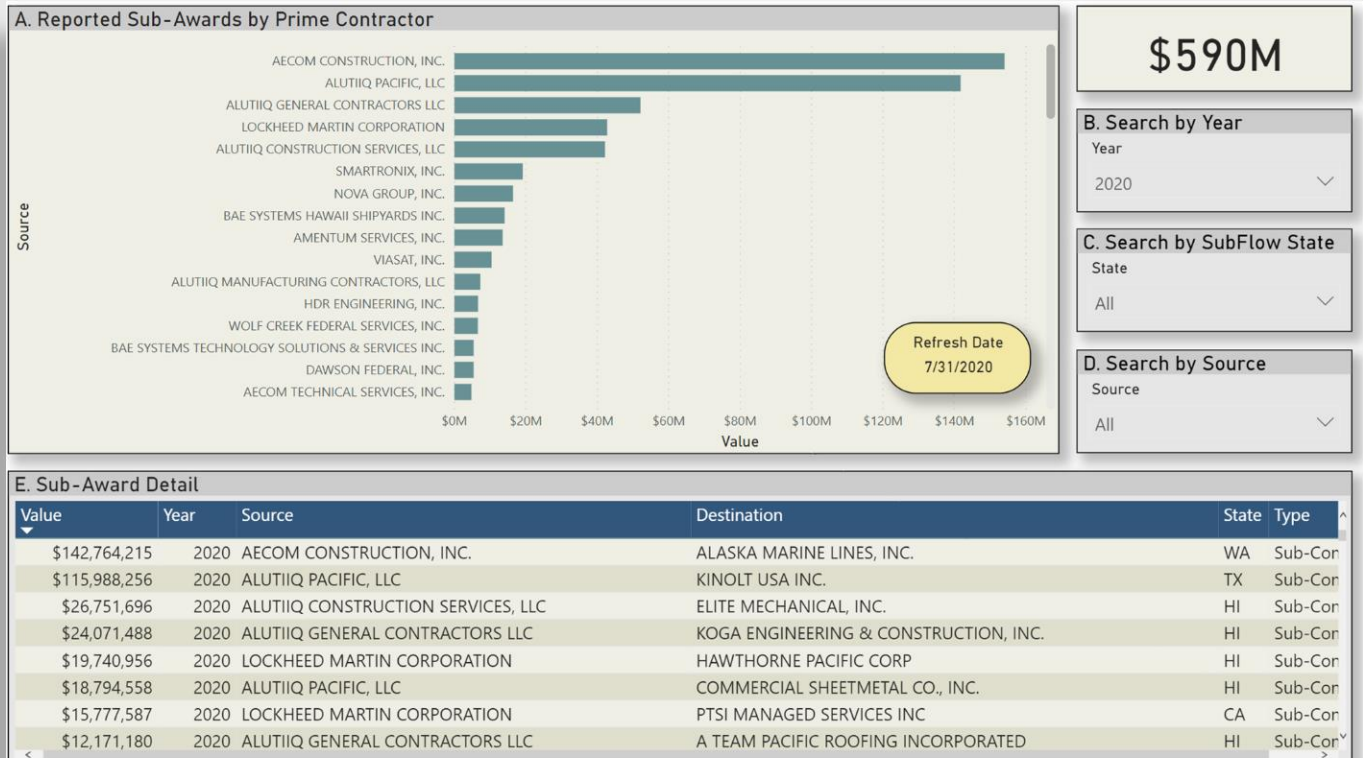
Figure 17



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

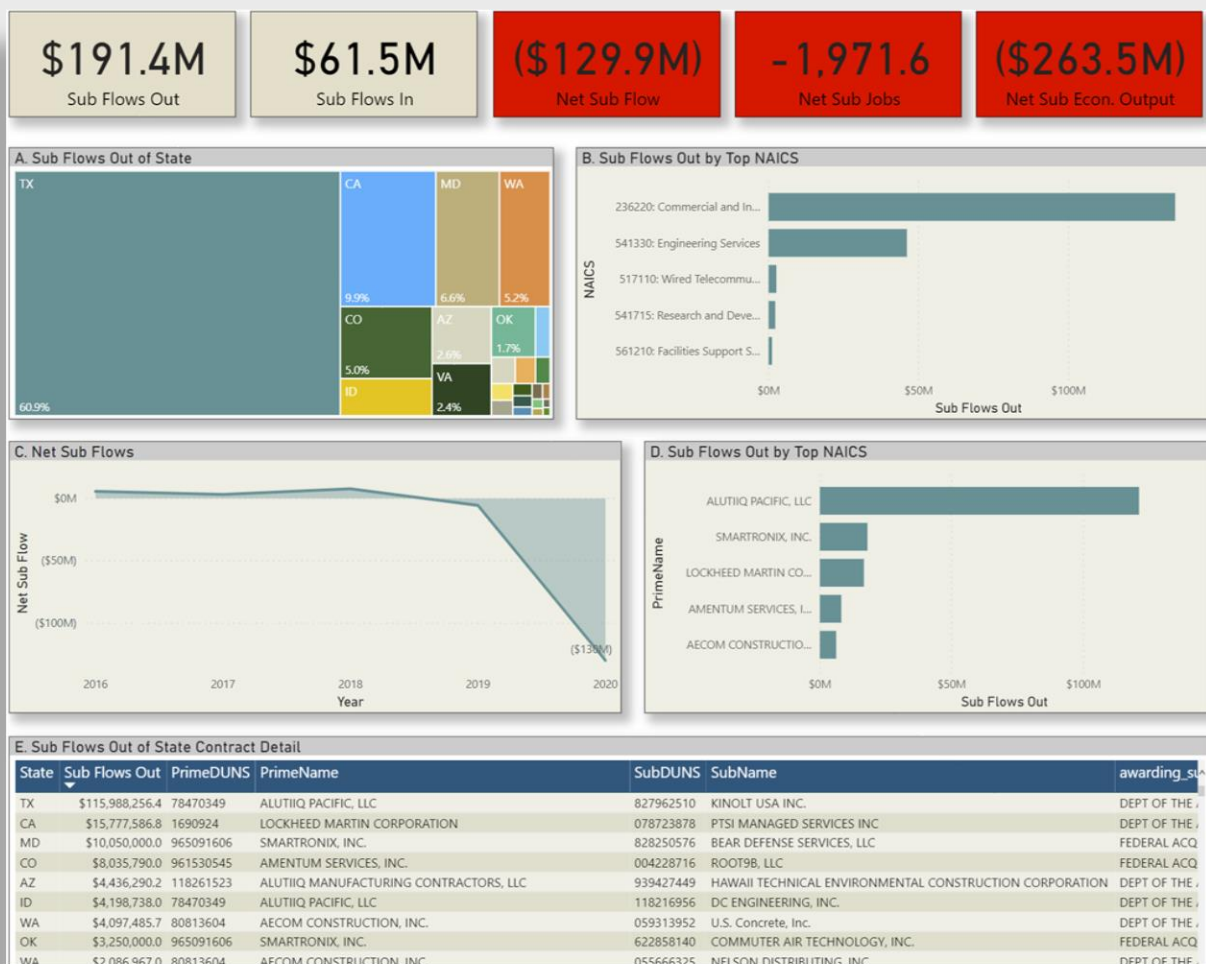


5.8 Leakage Analysis

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 subcontractor 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*).

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 sub-contractors/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 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](#))