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NELHA REPORT

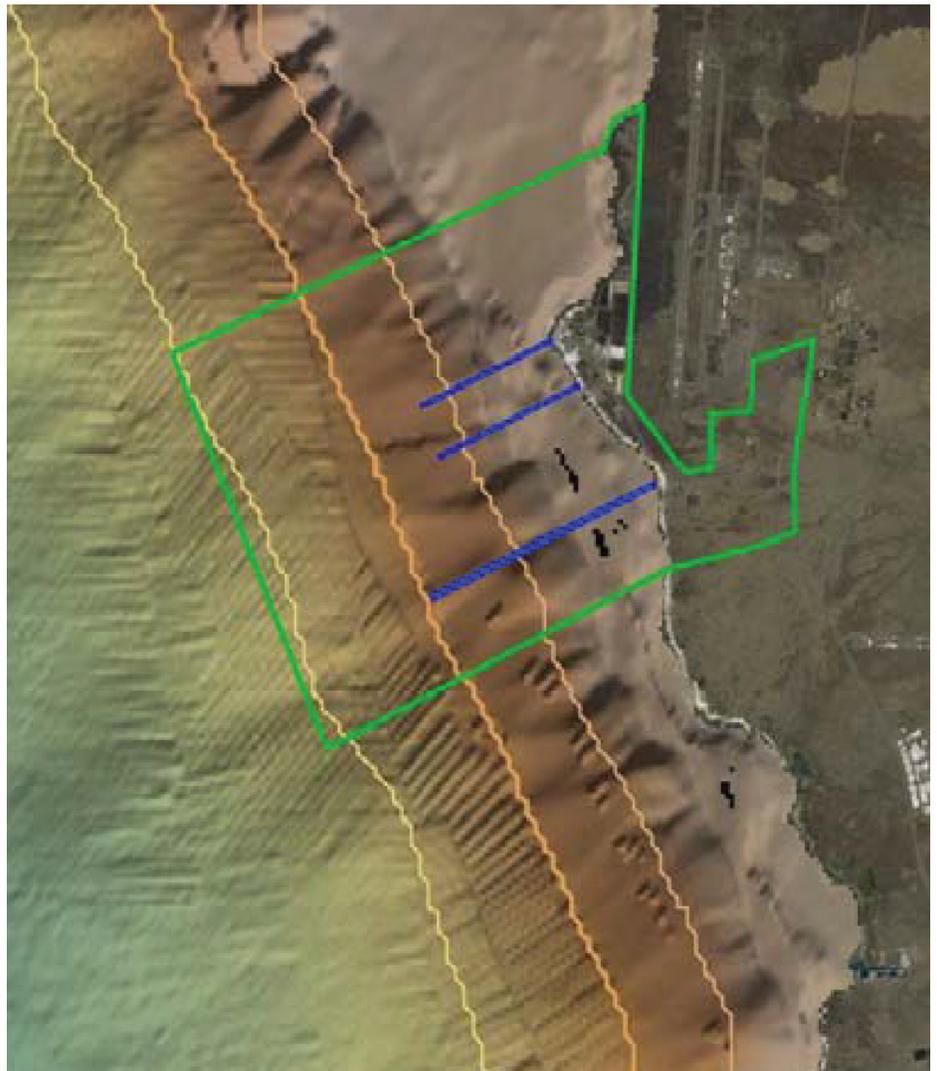
ECONOMIC IMPACT OF THE NATURAL ENERGY LABORATORY HAWAII AUTHORITY TENANT ON THE STATE OF HAWAII IN 2018

Prepared for Natural Energy Laboratory Hawaii Authority

OCTOBER 15, 2019



NELHA





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Economic Impact of the Natural Energy Laboratory Hawaii Authority Tenant on the State of Hawaii in 2018

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PREPARED FOR
Natural Energy Laboratory Hawaii Authority

PREPARED BY
UHERO

SHERILYN WEE, PH.D.
Economist

PAUL BERNSTEIN, PH.D.
Senior Consultant

RESEARCH ASSISTANCE BY
Pratistha Gyawali
Lanail Manio
Victoria Ward

2424 MAILE WAY, ROOM 540 • HONOLULU, HAWAII 96822
(808) 956-7605 • UHERO@HAWAII.EDU

EXECUTIVE SUMMARY

The Natural Energy Laboratory Hawaii Authority (NELHA) is a state agency that operates a unique and innovative ocean science and technology park in Kailua-Kona on the island of Hawaii. NELHA's assets include office and laboratory facilities, infrastructure, pristine natural resources, and leasable open land for use by tenant research, education, and commercial projects.

NELHA contracted the University of Hawaii Economic Research Organization (UHERO) to estimate its economic impact on the State of Hawaii. Specifically, this research determined NELHA's contribution to local business sales, employee earnings, tax revenues, and number of jobs in Hawaii from the expenditures of its tenants in 2018.

To estimate expenditures made by NELHA tenants in 2018, UHERO researchers developed a survey where expenditures were broken down into 17 named categories and respondents were asked to provide total expenditures in 2018 and the share of these expenditures that were paid to Hawaii vendors. UHERO received responses from 36 NELHA companies (out of 44). Expenditure levels for the survey non-respondents were estimated using various techniques. Total NELHA tenant expenditures were estimated at \$92.4 million, of which approximately \$64.5 million (or 70%) were paid to Hawaii entities.

Following a standard approach, UHERO defined economic impact to be the direct, indirect, and induced economic activities generated by the tenant's spending in the Hawaii economy. The 2012 20-sector State Input-Output (I-O) model of the State of Hawaii prepared by the Hawaii Department of Business, Economic Development and Tourism (DBEDT) was used to evaluate these impacts. The impact of NELHA's in-state expenditures in 2018 on the State's output (sales), earnings, and tax revenues was estimated to be \$103.6, \$25.5, and \$4.8 million respectively. Furthermore, not only do NELHA tenants employ hundreds of people but their expenditures also contribute to hundreds of other jobs in the larger Hawaii economy (509 total excluding NELHA employees; NELHA itself employs an additional 17 people).

INTRODUCTION

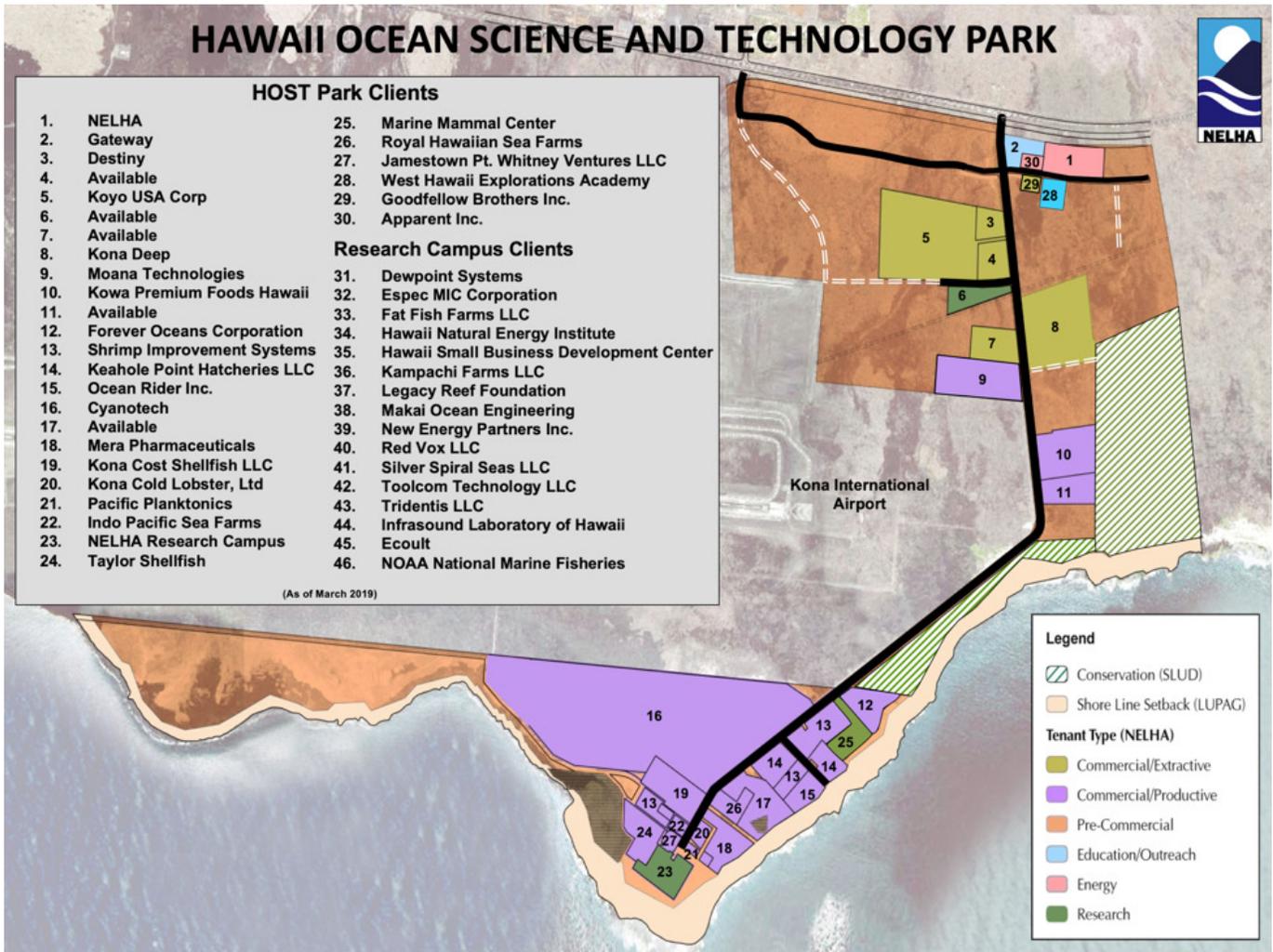
The Natural Energy Laboratory Hawaii Authority (NELHA) contracted the University of Hawaii Economic Research Organization (UHERO) to estimate its economic impact on the State of Hawaii. NELHA currently accommodates 46 tenants (representing 44 separate companies) ranging from companies bottling deep sea water to producing aquaculture and developing renewable energy technologies (See Figure 1 for a selected list of clients).¹ These tenants pay close to \$2 million in rent and royalties directly to NELHA. In addition, they employ hundreds of people, purchase goods and services from local businesses, and invest in capital improvements at NELHA.

This study estimates NELHA's contribution to local business sales, employee earnings, tax revenues, and number of jobs in Hawaii from the expenditures of its tenants in 2018. Note, NELHA also provides additional benefits to the State of Hawaii that this study does not capture but are important to consider when evaluating NELHA's overall footprint on the economy.²

1 In 2018, NELHA had 46 tenants, of which 44 were independent companies (i.e. two tenants are subsidiaries of parent companies).

2 These benefits are described in UHERO (2012). Economic Impact of the Natural Energy Laboratory Hawaii Authority Tenants on the State of Hawaii. <http://www.uhero.hawaii.edu/assets/UHERONELHAimpactstudy-final.pdf>

Figure 1. Selected list of NELHA Clients (as of March 2019)



BACKGROUND ON NELHA

NELHA’s mission statement is: “To develop and diversify the Hawaii economy by providing resources and facilities for energy and ocean-related research, education, and commercial activities in an environmentally sound and culturally sensitive manner.”

NELHA is a state agency that operates a unique and innovative ocean science and technology park in Kailua-Kona on the island of Hawaii. NELHA’s assets include office and laboratory facilities, infrastructure, pristine natural resources, and leasable open land for use by tenant research, education, and commercial projects. A dual-temperature seawater system that is the only one of its kind in the world sets NELHA apart from all other technology parks and creates a prime setting for innovation and new industry development in this island coastal setting. NELHA aims to attract tenants of all types – research, educational, and commercial entities. Numerous innovative research projects have been completed at NELHA in the past and spawned new commercial enterprises that are established and successful businesses today. A public charter school was created at NELHA to take advantage of the many resources

of this growing ocean science and technology community. A new federally funded facility, the NELHA Gateway project, provides a setting for leading edge research and development in distributed energy resources and renewable energy technologies, and a new commercial Ocean Center development that will provide opportunities for new ocean-related businesses.

METHODOLOGY

This study uses standard empirical research methods to assess the economic impact of NELHA to the state of Hawaii. The essential steps conducted include survey design, data collection from the survey, data processing, and input-output analysis.

The survey design used for this study is identical to the survey conducted by UHERO researchers for the latest calendar year 2013. To facilitate data collection, expenditures were broken down into 17 named categories. Respondents were asked to provide the total expenditures in 2018 rounded to the nearest thousand dollars and the share of these expenditures that went to Hawaii vendors. Tenants were given the option to submit their responses online using Survey Share or via hardcopy. A copy of the expenditure survey of NELHA tenants is included in the Appendix.

Of the 44 entities, 36 responded.³ Of the eight companies who did not complete the survey, UHERO estimated the expenditures of seven using one of three techniques. The remaining one tenant was deemed relatively small and therefore was excluded from the analysis.⁴

For the five of the seven tenants who did not complete the survey, we first identified a tenant who has a similar type of business and had filled in a survey. Then we filled in all data except rent payments for these five tenants by assuming their profile of expenditures was identical to the similar company we identified. NELHA reports the rent that they received from all tenants including these five tenants. For each of these five entities, we computed their expenditures by category as the product of the ratio of their rent to the rent of its similar company and the expenditure in this category as reported by the similar tenant. For the share of in-state expenditures, we assumed the same share as reported by the similar tenant.

For the other two tenants, one of the tenant's expenditures were estimated by using its completed 2010 survey and the ratio of its revenues in 2018 to those in 2010.⁵ In other words, to compute this tenant's expenditures by category, we compute the product of the tenant's 2010 expenditures by category and the ratio of its 2018 revenues to its 2010 revenues. For the remaining tenant, we made use of its 2013 business plan to forecast its 2018 revenues, total expenditures, and expenditures on materials. Then to estimate expenditures on all other categories, we employed the same technique as used for the five tenants who provided no data.

3 Compared to 2013, the response rate was 12 percentage points higher.

4 However, we include their rent payments to NELHA.

5 We used 2010 survey data since there was no 2013 survey data for this tenant.

Using rent as a proxy for expenditures could have many shortcomings. In addition, our matching of tenants who did not complete a survey with a tenant that did is quite imperfect. Therefore, our estimates of expenditures for these seven tenants is highly uncertain. However, since the estimated total expenditures from these tenants represents less than 4% of the total expenditures and only 5% of rent payments made to NELHA, the errors from our estimates are unlikely to significantly affect the overall results and conclusions.⁶

Table 1 reports the final survey results in terms of number of surveys and total expenditures by companies who completed and did not complete a survey.

Table 1: Final survey results (Tenants/Companies and Total Expenditures)

| Tenant Category | Tenants (#) | Expenditures (million 2018\$s) |
|---|-------------|--------------------------------|
| Tenants who completed a survey | 36 | \$61.7 |
| Tenants whose expenditures were estimated by UHERO | 7 | \$2.82 |
| Tenants whose expenditures were deemed to be relatively small | 1 | |
| Total | 44 | \$64.5 |

RESULTS

The total expenditures of NELHA tenants were computed by summing expenditures across tenants within each category. A tenant's expenditures to Hawaii vendors equal its total expenditures in a given category multiplied by the indicated share of expenditures in that category that went to Hawaii vendors. Then we summed local expenditures for each category across all tenants to arrive at total expenditures by all tenants for each category to Hawaii vendors. The analysis was performed on these aggregate data so that no individual tenant could be identified, therefore maintaining anonymity.

To compute the economic impacts of NELHA tenants' expenditures, one must convert the in-state retail level expenditure data collected from the surveys into producer level expenditures by industry categories identified in the Department of Business, Economic Development and Tourism's (DBEDT) 2012 condensed Input-Output (I-O) transactions table. This conversion must be done since all transactions in the DBEDT I-O model are valued at producer prices. Therefore, the economic multipliers that are used to estimate economic impacts are based on producer level rather than retail level data.

⁶ The 2013 study inferred the expenditures for eight tenants that did not fill out a survey. This study estimated expenditures from these eight tenants to be \$2.7 million in 2013 dollars.

In converting NELHA tenants' expenditures into producer level expenditures, we closely follow the methodology used and described in the 2012 NELHA Impact study.⁷ Table 2 reports producer level expenditures for each category, as well as retail and wholesale sector expenditures.

NELHA tenants spent about \$92.4 million on the categories below. Of these expenditures approximately 70% went to in-state entities.

Table 2: Estimated total and in-state expenditures by NELHA tenants (millions of 2018\$)

| Expenditure category | Total | In-State |
|-----------------------|---------------|----------------------|
| | | (Millions of 2018\$) |
| Rent | \$2.98 | \$2.24 |
| Financial & Insurance | \$3.62 | \$2.20 |
| Equipment | \$11.56 | \$6.25 |
| Materials | \$15.71 | \$6.47 |
| Utilities | \$8.14 | \$7.99 |
| Information | \$0.39 | \$0.32 |
| Transportation | \$3.17 | \$2.06 |
| Repair & Maintenance | \$1.82 | \$1.35 |
| Professional services | \$9.47 | \$6.85 |
| Other services | \$1.16 | \$0.86 |
| Accommodation | \$0.35 | \$0.17 |
| Government | \$1.30 | \$0.69 |
| Labor | \$32.74 | \$27.04 |
| Total | \$92.4 | \$64.5 |

⁷ For the description see: UHERO. (2012). *Economic Impact of the Natural Energy Laboratory Hawaii Authority Tenants on the State of Hawaii*. <http://www.uhero.hawaii.edu/assets/UHERONELHAimpactstudy-final.pdf>

Producer price expenditures equal retail price expenditures less retail, wholesale, and transportation margins.⁸ Table 3 below reports the retail, wholesale, and transportation margins applied to expenditure categories.

Table 3: Retail, transportation, and wholesale margins for personal consumption expenditures⁹

| Expenditure category | Retail Margin | Wholesale Margin | Transportation Margin |
|-----------------------------|----------------------|-------------------------|------------------------------|
| Rent | 0% | 0% | 0% |
| Financial & Insurance | 0% | 0% | 0% |
| Equipment | 0% | 26% | 3% |
| Materials | 33% | 6% | 3% |
| Utilities | 0% | 0% | 0% |
| Information | 0% | 0% | 0% |
| Transportation | 35% | 8% | 0% |
| Repair & Maintenance | 0% | 0% | 0% |
| Professional services | 0% | 0% | 0% |
| Other services | 0% | 0% | 0% |

The DBEDT tables on margins are broken out by commodity (e.g., computers, groceries, drugs, etc.). For example, “Equipment” is generally purchased through wholesalers and was viewed to be mainly for durable goods, therefore for the wholesale component, we used DBEDT’s margins for “Miscellaneous Durable Equipment” and zero margins for the retail component. Expenditure category “Materials”, on the other hand, was assigned both wholesale and retail margins. Since “Materials” do not cleanly fall in any of the DBEDT’s specified commodity categories, we mapped it to the “All other merchandise” category (that has retail margin of 0.331 and wholesale margin of 0.063). Transportation margins, which include truck, air, and water transportation types, were applied to both equipment and materials. Rent, financial and insurance products, utility payments, information services, repair & maintenance, and professional services were paid directly to the providers of these goods and services. Therefore, no margins were associated with these categories.

⁸ Appendix C in Department of Business, Economic Development and Tourism (DBEDT). (2016). *The Hawaii State Input-Output Study: 2012 Benchmark report*. http://files.hawaii.gov/dbedt/economic/reports/IO/2012_state_io_study.pdf

⁹ *Ibid.*

Using these margins, we compute each category's expenditures on the retail, wholesale, and transportation sectors. These three expenditures are subtracted from the category's retail level expenditures to compute the category's producer level expenditures. Then the retail, wholesale, and transportation expenditures from each sector are summed to compute the total expenditures on the retail, wholesale, and transportation sector.

Next, to apply the 2012 multipliers, we mapped the expenditures from the categories in our survey to the 20 condensed industry sectors identified in the DBEDT 2012 I-O study. Table 4 shows how the survey categories map into the corresponding industry sectors.

Table 4: Concordance of survey categories with DBEDT industrial sectors

| Survey Categories | Industry Sectors (number and name) |
|--------------------------|---|
| Rent | 11 Real estate and rentals |
| Equipment | 4 Other Manufacturing |
| Financial & Insurance | 10 Finance and insurance |
| Materials | 4 Other Manufacturing |
| Utilities | 7 Utilities |
| Information | 6 Information |
| Transportation | 5 Transportation |
| Repair & Maintenance | 19 Other services |
| Professional services | 12 Professional services |
| Travel (Lodging) | 17 Accommodations |
| Other Travel | 13 Business Services |
| Government | 20 Government |

Table 5 shows the resulting expenditures for all sectors. This table also converts expenditures on labor to personal consumption expenditures or the amount of labor earnings spent on in-state goods and services.

Table 5: In-state producer level expenditures as well as retail and wholesale expenditures by DBEDT sectors (millions of 2018\$s)

| Industry Sector | In-State Expenditures (millions of 2018\$s) |
|--|--|
| Real estate and rentals | \$2.24 |
| Other Manufacturing | \$8.19 |
| Finance and insurance | \$2.20 |
| Utilities | \$7.99 |
| Information | \$0.32 |
| Transportation | \$1.54 |
| Business services | \$0.86 |
| Professional services | \$6.85 |
| Other services | \$1.35 |
| Accommodations | \$0.10 |
| Government | \$0.69 |
| Retail | \$2.93 |
| Wholesale | \$2.20 |
| Personal consumption expenditures (PCEs) | \$22.63 |
| Total in-state expenditures | \$60.1 |

A substantial portion of labor earnings (\$27.0 million) will be injected back to the economy in the form of household purchases of goods and services. Personal consumption expenditures (PCEs) may be treated as an additional producing sector. The conversion ratio between labor earnings and PCEs is calculated using the 2012 I-O Transaction Table for Hawaii and equals 83.7%, indicating that about 83.7% of employee's earnings are spent in the local economy. This suggests that of the \$27.0 million of labor earnings, approximately \$22.6 million will be spent in the Hawaii economy.

The expenditures in Table 5 correspond to a direct effect of NELHA tenants on the Hawaii economy. For example, NELHA tenants spent a total of roughly \$6.9 million directly on professional services. The professional services sector in turn spent some of these expenditures on Hawaii goods and services. This indirect action leads to a multiplier effect. In addition, there is an induced effect that refers to the changes in household spending that result from changes in earnings through direct and indirect effects.

In other words, for every dollar spent, the direct effect is the original dollar, the indirect effect is the additional spending by industries created by that dollar, and the induced effect is the additional spending by households in the economy from increased income as a result of that original dollar spent.

To evaluate the short-term impact of tenant expenditures in 2013 on the State of Hawaii, we used Type II multipliers from DBEDT's 2012 20-sector I-O model. The Type II multipliers are widely used in real-world applications, as they capture the direct, indirect, and induced effects per dollar of spending in each sector of the economy. The impacts were computed by multiplying the expenditures by their respective type II multipliers to arrive at output, earnings, state tax, and jobs as shown in Table 6.

Table 6: 2012 Condensed Output, Earnings, State Tax, and Employment Type II Multipliers for Hawaii¹⁰

| Industry | Output | Earnings | State Tax | Jobs (per million \$s of expenditures) |
|-----------------------------------|--------|----------|-----------|--|
| Real estate and rentals | 1.41 | 0.21 | 0.06 | 4.87 |
| Other Manufacturing | 1.41 | 0.15 | 0.03 | 3.11 |
| Finance and insurance | 2.22 | 0.57 | 0.11 | 11.71 |
| Utilities | 1.88 | 0.25 | 0.07 | 3.70 |
| Information | 1.71 | 0.42 | 0.09 | 7.49 |
| Transportation | 1.90 | 0.48 | 0.08 | 9.44 |
| Business services | 2.06 | 0.81 | 0.14 | 18.10 |
| Professional services | 2.14 | 0.80 | 0.14 | 13.85 |
| Other services | 2.30 | 0.79 | 0.11 | 17.86 |
| Accommodation | 2.09 | 0.60 | 0.17 | 10.86 |
| Government | 1.83 | 0.79 | 0.08 | 12.50 |
| Retail trade | 1.81 | 0.51 | 0.11 | 13.27 |
| Wholesale trade | 1.93 | 0.47 | 0.07 | 8.28 |
| Personal Consumption Expenditures | 1.54 | 0.41 | 0.08 | 8.82 |

¹⁰ Table 2.1 in Department of Business, Economic Development and Tourism (DBEDT). (2016). *The Hawaii State Input-Output Study: 2012 Benchmark report*. http://files.hawaii.gov/dbedt/economic/reports/IO/2012_state_io_study.pdf

The product of these multipliers and the producer level expenditures yields the economic impact of NELHA on Hawaii's economy in 2018. For example, the output multiplier for "Real estate and rentals" is 1.41. This means that every \$1 change in "Real estate and rentals" final demand changes the economy's total output (or sales) by \$1.41. This includes the direct effect of the initial dollar change (\$1.00) plus the combined indirect and induced effects of \$0.41. Hence, the contribution to output from the rental income paid by tenants is found by multiplying the "Real estate and rental expenditures" (\$2.13 million dollars) by the "Output" multiplier for this sector (1.41), which yields a contribution of \$3.0 million dollars. Table 8 reports impacts of NELHA tenants in-state expenditures on state output, earnings, taxes, and employment by industry.¹¹

Table 7 reports impacts of NELHA and NELHA tenants' in-state expenditures on state output, earnings, taxes, and employment by industry. These estimates can be interpreted for the state as a whole or industry-by-industry. For example, take the transportation industry. NELHA tenants collectively spent \$1.5 million in this individual sector. The impact on Hawaii's larger economy from NELHA's spending on the transportation industry was \$2.9 million in output (sales), \$740,000 in employee earnings, \$120,000 in additional state taxes, and 17 additional jobs. The total state impact from all of NELHA's spending was an increase of \$103.6 million in output (sales), \$25.5 million in earnings, \$4.8 million in increased state taxes, and 509 additional jobs. In other words, every million dollars spent by NELHA created 8 jobs in 2018 in Hawaii.

11 Column totals may differ slightly from the sum of the reported row values due to rounding. The state taxes in the 2012 I-O (Table 25) include the following 13 categories: (1) general excise and use tax (accounted for about 48.1% of total state taxes), (2) individual income tax (26.2%), (3) corporate income tax (1.8%), (4) transient accommodations tax (5.5%), (5) fuel tax (3.0%), (6) alcohol and tobacco tax (2.9%), (7) PUC tax (2.5%), (8) insurance tax (2.1%), (9) unemployment compensation tax (3.8%), (10) motor vehicle tax/fees (3.3%), (11) conveyance tax (0.7%), (12) bank and other financial institutions tax (0.1%), and (13) licenses, permits, and others (0.01%). Excluded from state taxes were property taxes, other city and county taxes, and federal taxes.

Table 7: Initial expenditures and total economic impacts (millions of 2018\$ and Jobs)

| Industry | In-state expenditures | Impact on Hawaii's | | | |
|-------------------------|-----------------------|----------------------|---------------|---------------|------------|
| | (millions of 2018\$) | Output | Earnings | State Taxes | Jobs |
| | | (Millions of 2018\$) | | | (#) |
| Real estate and rentals | \$2.24 | \$3.15 | \$0.47 | \$0.13 | 11 |
| Other Manufacturing | \$8.19 | \$11.57 | \$1.26 | \$0.24 | 25 |
| Finance and insurance | \$2.20 | \$4.88 | \$1.25 | \$0.24 | 26 |
| Utilities | \$7.99 | \$15.01 | \$1.99 | \$0.53 | 30 |
| Information | \$0.32 | \$0.55 | \$0.13 | \$0.03 | 2 |
| Transportation | \$1.54 | \$2.92 | \$0.74 | \$0.12 | 15 |
| Business services | \$0.86 | \$1.76 | \$0.69 | \$0.12 | 15 |
| Professional services | \$6.85 | \$14.68 | \$5.47 | \$0.96 | 95 |
| Other services | \$1.35 | \$3.10 | \$1.07 | \$0.15 | 24 |
| Accommodations | \$0.10 | \$0.21 | \$0.06 | \$0.02 | 1 |
| Government | \$0.69 | \$1.27 | \$0.55 | \$0.06 | 9 |
| Retail trade | \$2.93 | \$5.29 | \$1.50 | \$0.32 | 39 |
| Wholesale trade | \$2.20 | \$4.24 | \$1.03 | \$0.15 | 18 |
| PCEs | \$22.63 | \$34.93 | \$9.27 | \$1.72 | 199 |
| Total | \$60.1 | \$103.6 | \$25.5 | \$4.80 | 509 |

NELHA's economic impact on the State of Hawaii fell from 2013 levels, which is consistent with a reduction in total output (i.e. from \$132.5 million to \$103.6 million in 2018 dollars). The decrease in earnings, tax revenues, and jobs was 18%, 11%, and 17%, respectively. There are a number of factors that contributed to this reduction in economic impact. First, the share of in-state expenditures fell from 73% in 2013 to 70% in 2018. Second, the aggregate multiplier for converting in-state expenditures to total output fell from 1.77 to 1.72, mainly due to the mix of spending. As for jobs, DBEDT estimates the labor productivity to have increased by over 15% from 2013 to 2018. Lastly, there are differences in tenants and a loss in funding (approximately \$10 million per year) from the National Defense Center of Excellence for Research in Ocean Sciences (CEROS), which supported innovative technologies for national maritime military applications and sustained technology-based economic development in Hawaii. More broadly, macroeconomic trends likely impacted overall spending at NELHA.

For example, the automatic US federal government spending cuts that began in March of 2013 reduced federal spending on research by as much as 7%. And, spending and employment in the R&D space throughout the state likely declined over the 2013-2018 period. Evidence of this over at least the 2013-16 period is the 6% decline in employment in Honolulu's Other Research Sub-cluster.¹²

SUMMARY

We obtained expenditures data for calendar year 2018 for 36 NELHA companies (out of 44). The expenditure levels for the survey non-respondents were estimated using various techniques. Total NELHA tenant expenditures were estimated at \$92.4 million, of which about \$60.1 million (or 70%) were paid to Hawaii entities.

The in-state expenditures provided many economic benefits to the state of Hawaii. Using the DBEDT multipliers, we estimated the impact of NELHA in-state expenditures on the State's output (sales), earnings, and tax revenues to be \$103.6, \$25.5, and \$4.8 million, respectively. Furthermore, not only do NELHA tenants employ hundreds of people but also their expenditures contribute to over 509 jobs in the larger Hawaii economy.

12 This sub-cluster consists of firms that conduct research and development in biotechnology, physical sciences, engineering, life sciences, and social sciences. See http://clustermapping.us/data/report/map/county/2013/2016/13/4/emp_creation_tl/csv

APPENDIX: NELHA TENANT SURVEY

| Category | Description and examples | Total CY2018 expenditures (to the nearest thousand \$) | % of total CY2018 expenditures to Hawai'i businesses |
|--------------------------------|--|---|---|
| Salaries and wages | Salaries and wages paid to employees or contractors. Do not include fringe. | | |
| Employee benefits | Fringe benefit payments, expenditures for business and employee insurance coverage, employee benefit programs and services. Do not include FICA. | | |
| FICA taxes | Federal Insurance Contributions Act | | |
| Rent | Rental expenses paid to NELHA, rental of facilities, equipment, vessels, cars, etc. | | |
| Equipment | Expenditures for capital purchases - durable goods, equipment, motor vehicles, furniture, construction materials, metals and minerals (except petroleum), laboratory equipment, scientific instruments, etc.; include raw and intermediate materials and supplies used in production | | |
| Supplies | Office supplies, consumables, minor equipment | | |
| Information | Internet, Telecommunications, Broadcasting | | |
| Utilities | Electricity, gas, water (if paid separately from rent) | | |
| Professional services | Expenditures for services such as accounting and payroll; computer support; consulting; research; advertising, engineering, architectural, etc. | | |
| Financial & Insurance services | Investment management services, expenditures for interest on loans or leasing arrangements | | |
| Business services | Waste management and remediation services; security and surveillance services, cleaning | | |
| Transportation | Expenditures to transport materials and equipment via air, water, truck, rail, etc.; include warehousing and storage en route | | |
| Repair & Maintenance | Equipment and machinery repairs and maintenance | | |
| Taxes | Payroll taxes other than FICA, real property taxes, income taxes, import taxes | | |

| Category | Description and examples | COLUMN A Total calendar year 2018 expenditures (to the nearest thousand \$) | COLUMN B % of total calendar year 2018 expenditures to Hawaii business* |
|----------|---|---|--|
| Travel | Expenditures for airfare, lodging, meals & incidentals paid on behalf of employees and others such as event participants, invited guests, etc. Please provide total and a breakdown of lodging costs and airfare/ground transportation as % of the total travel expenditures. | | |
| | Total travel | | |
| | Lodging (%) | (% of the total travel) | (% of column A to HI vendors) |
| | Airfare/gr transportation (%) | (% of the total travel) | (% of column A to HI vendors) |
| Other | (Please describe) | | |

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