

Learn
Live [^] Work , Play

A regional strategy for workforce readiness and economic development

LWP vs LLWP

- Live, Work, Play¹:

A mixed-use sustainable community where a neighborhood market, restaurants, retail shops and a walk-to-work office community are combined with residential living and public gathering areas.

- Live, Learn, Work, Play²:

A mixed-use residential living area where school curriculum is aligned with the skill set needed to enter a surrounding industry thereby creating a neighborhood that retains its local graduates (reverse brain drain) through workforce readiness.

1. Definition provided by Live, Work, Play Aiea. www.liveworkplayaiea.com
2. Partial definition provided by Live, Work, Learn, Play. www.lwlp.com

School Complex Career Pathways

In spite of multiple and various efforts to improve student learning in Hawaii, the results have been varied and fractured. Industries and education are not aligned to produce workforce-ready graduates, resulting in graduates leaving Hawaii in search of better opportunities and employers outsourcing a large percentage of their workforce that should be dedicated to local employees.

The School Complex Career Pathways initiative is a holistic approach helping to engage and inspire our students with the effort concentrated within the school complex. In addition to “growing” a skilled local workforce, this initiative hopes to open the doors to the myriad possibilities that show our children that through a “good education” they can achieve their dreams. Whether they choose to remain at home or to move abroad, they will have the training and skills to live wherever they choose.

This template could be utilized for each regional school complex that can create or identify a local industry.

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9. Future partnerships
10. Attract Funding Opportunities with Private Partners

WHY?

Problem → Solution
(no alignment)
Topic #1



WHO?

Partnerships
Organization (chart)
Topic #2

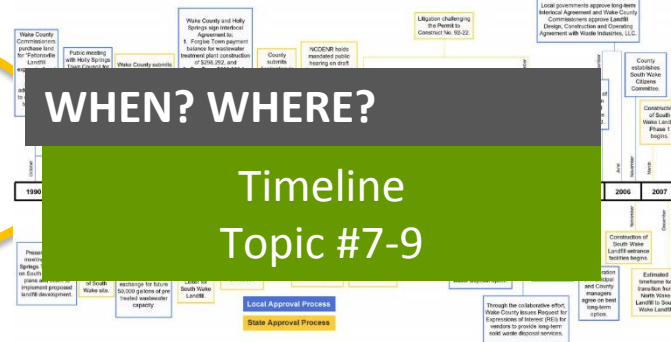
WHAT? HOW?

Program Slide
Topic #3-6



WHEN? WHERE?

Timeline
Topic #7-9



HOW MUCH?

What we need from you.
What we need from
partners.

Topic #10



Why: Schools and industries lack the precise alignment.

Who: Schools will have to identify the necessary partners.

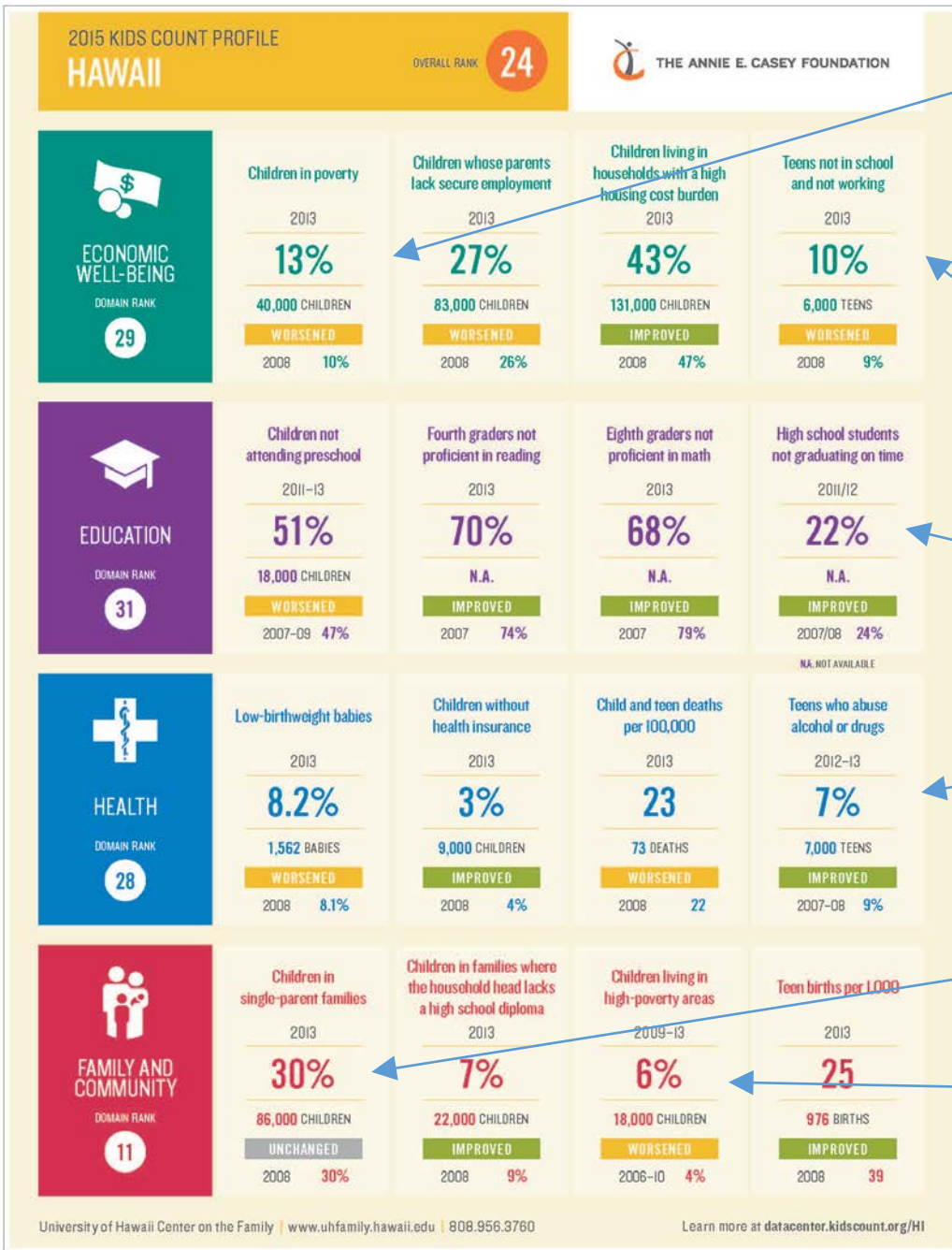
What: School complexes must develop programs that will provide graduates options to enter the workforce or be college ready.

When: The timeline will depend on situation of the industry.

How much: Funding will be needed to retrofit facilities and develop curriculum.

1. Demonstrated Needs

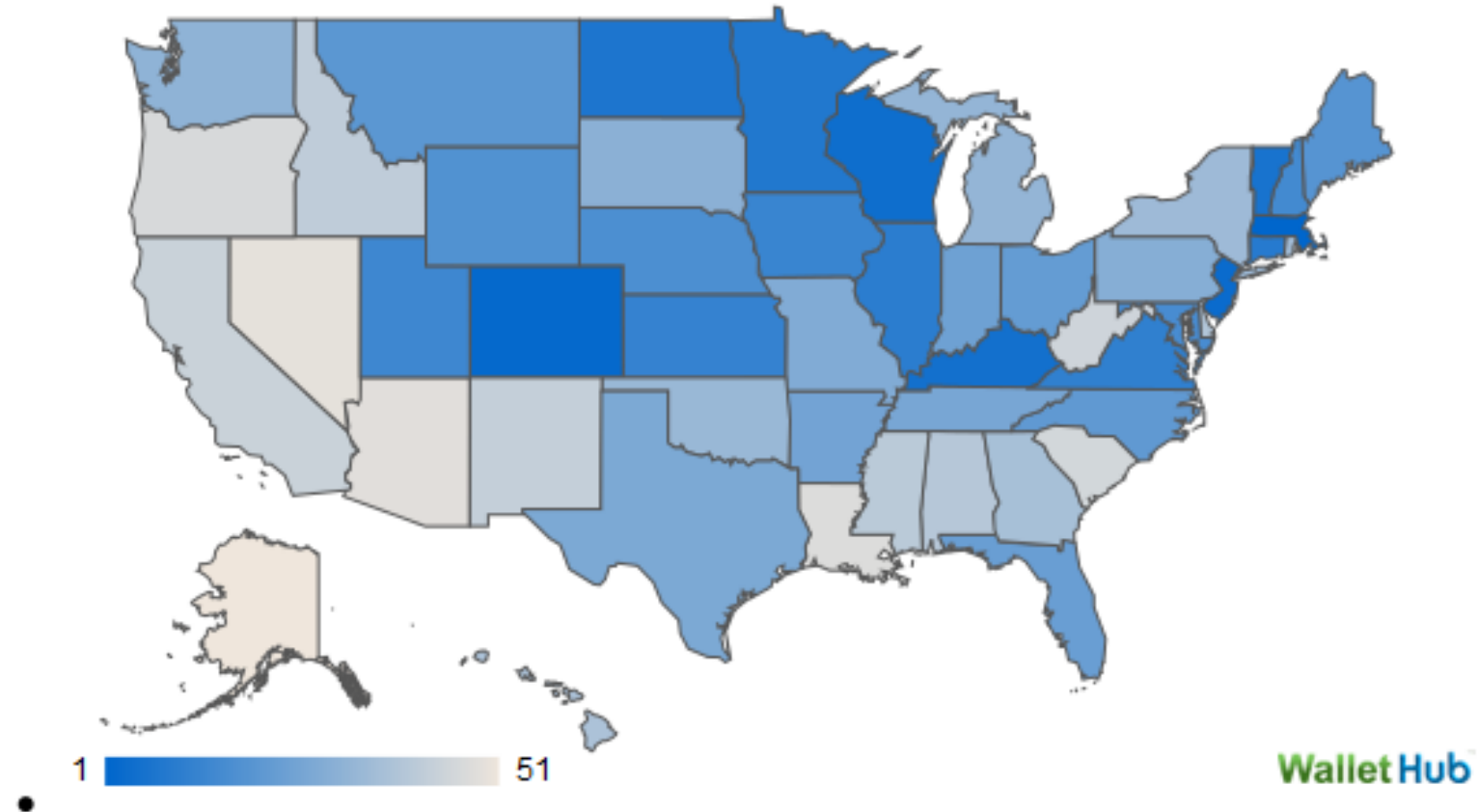
Justify the demonstrated needs through community trends



- Children in poverty: **13%**
- Children whose parents lack secure employment: **27%**
- Teens not in school/working: **10%**
- High school graduates not graduating on time: **22%**
- Teens who abuse alcohol/drugs: **7%**
- Single-parent families: **30%**
- Children living in high poverty areas: **6%**

Hawaii's statistics are alarming. Students need options other than college-prep curriculum. The curriculum should ensure all graduates have an equal opportunity for employment –to pivot from high school to career.

Ranking School Systems

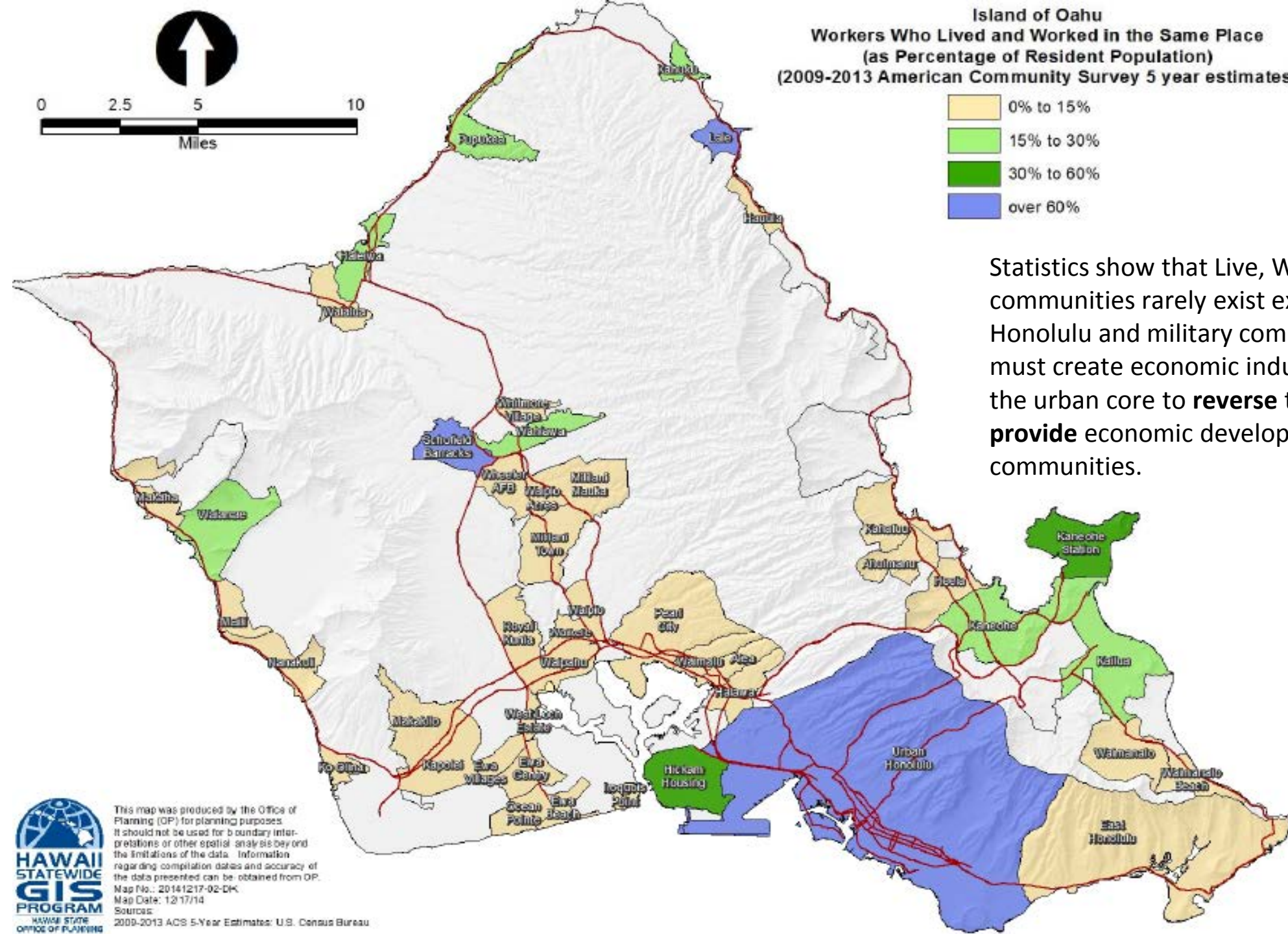
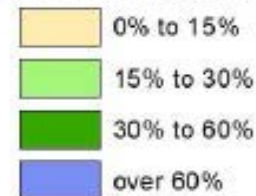


Source: [WalletHub](#)

A recent study found that Hawaii ranks **37th** overall in education systems despite ranking **17th** in spending.



Island of Oahu
Workers Who Lived and Worked in the Same Place
(as Percentage of Resident Population)
(2009-2013 American Community Survey 5 year estimates)



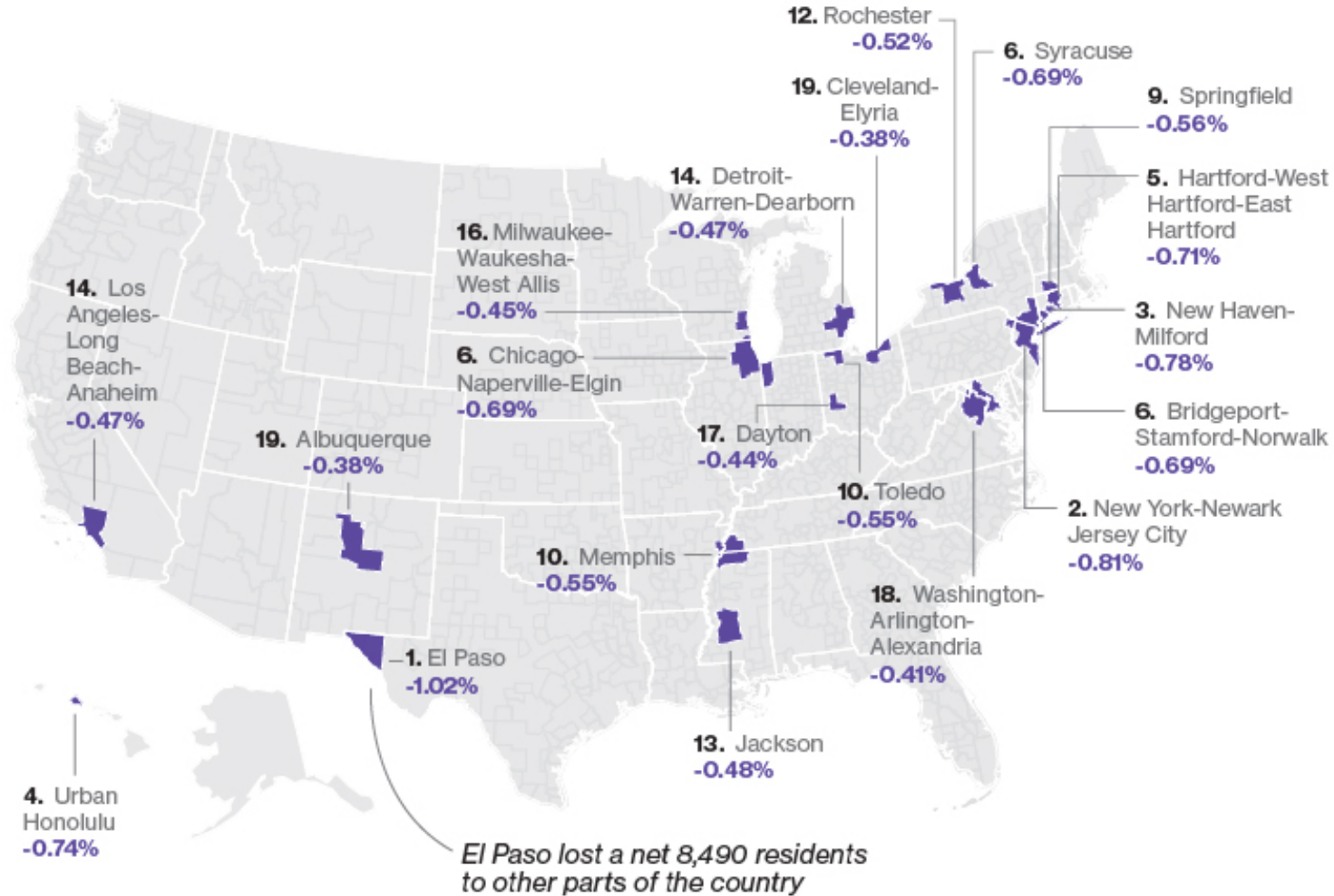
Statistics show that Live, Work, Play communities rarely exist except in Urban Honolulu and military communities. Hawaii must create economic industries outside of the urban core to **reverse** the brain drain, **provide** economic development, and **sustain** communities.



This map was produced by the Office of Planning (OP) for planning purposes. It should not be used for boundary interpretations or other spatial analysis beyond the limitations of the data. Information regarding compilation dates and accuracy of the data presented can be obtained from OP.
 Map No.: 20141217-02-DK
 Map Date: 12/17/14
 Sources:
 2009-2013 ACS 5-Year Estimates; U.S. Census Bureau

The Cities Americans Are Ditching

Of the 100 most populous metro areas in the U.S., these 20 lost the highest share of their residents to other parts of the country.

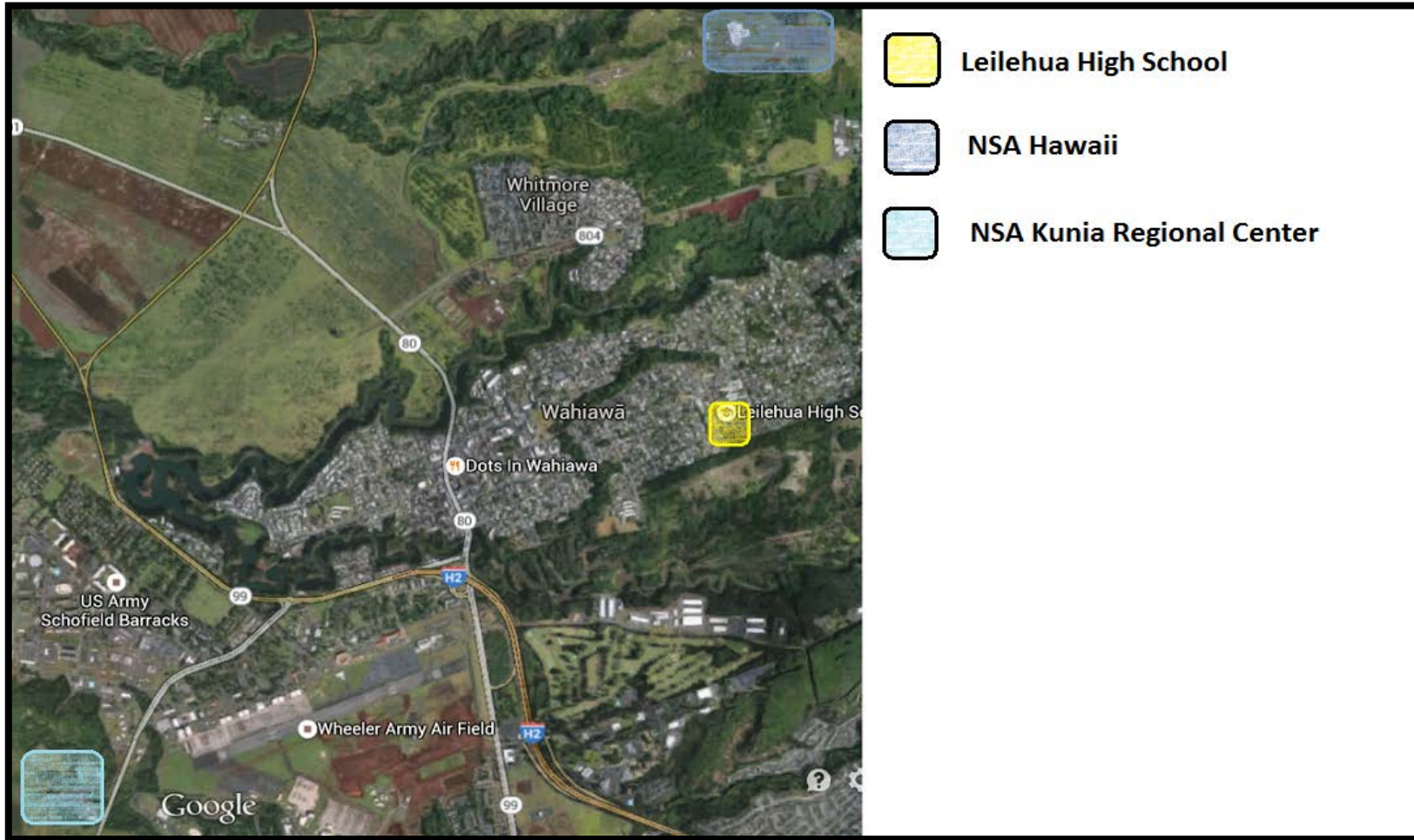


Source: Bloomberg analysis of U.S. Census data

2. Identify or Create.

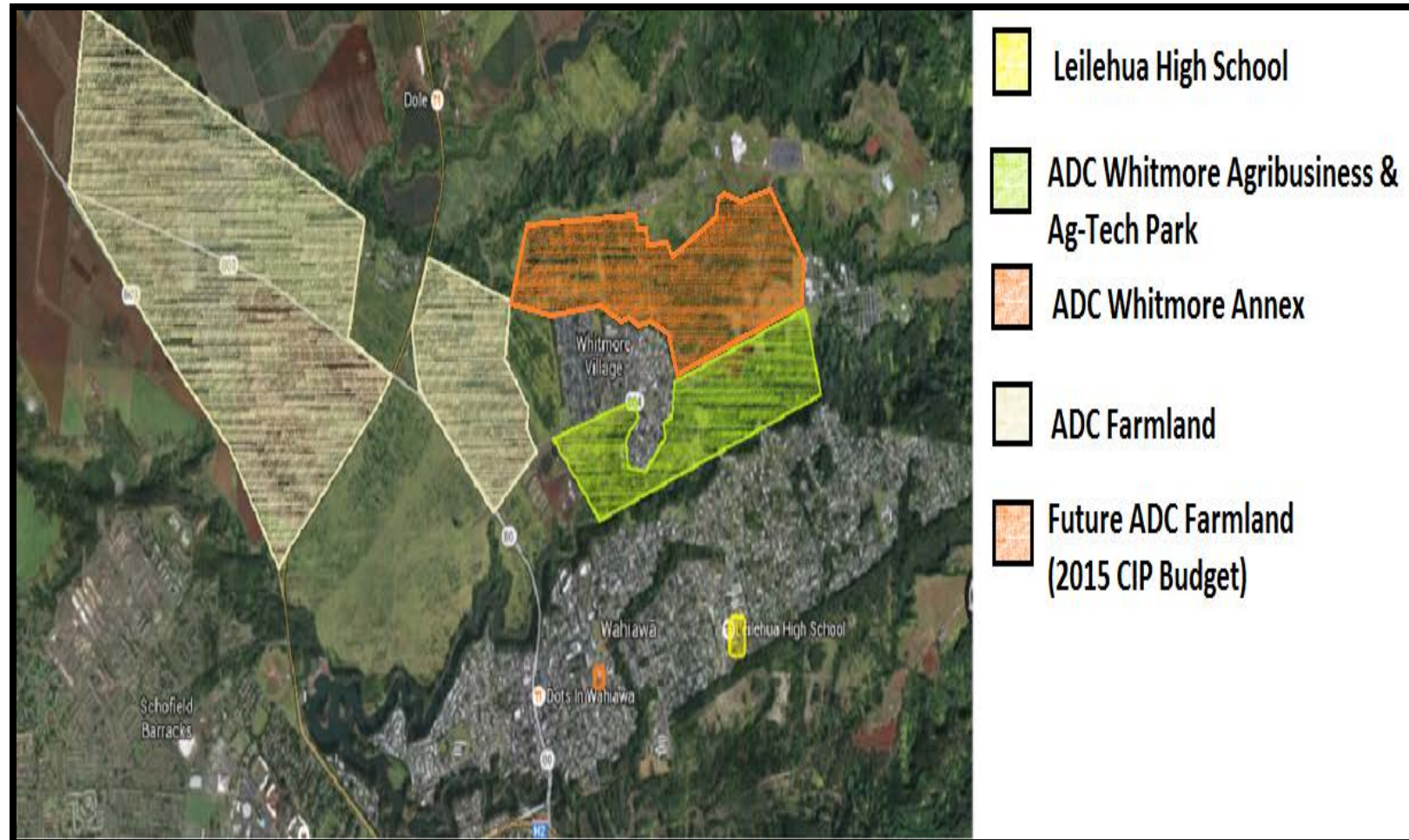
Identify or create industry in region that encompasses a high school and feeder schools.

Leilehua Complex National Security Agency Hawaii



Identifying the industry within a region:
Leilehua Complex has identified the
National Security Agency (NSA) as a career
pathway.

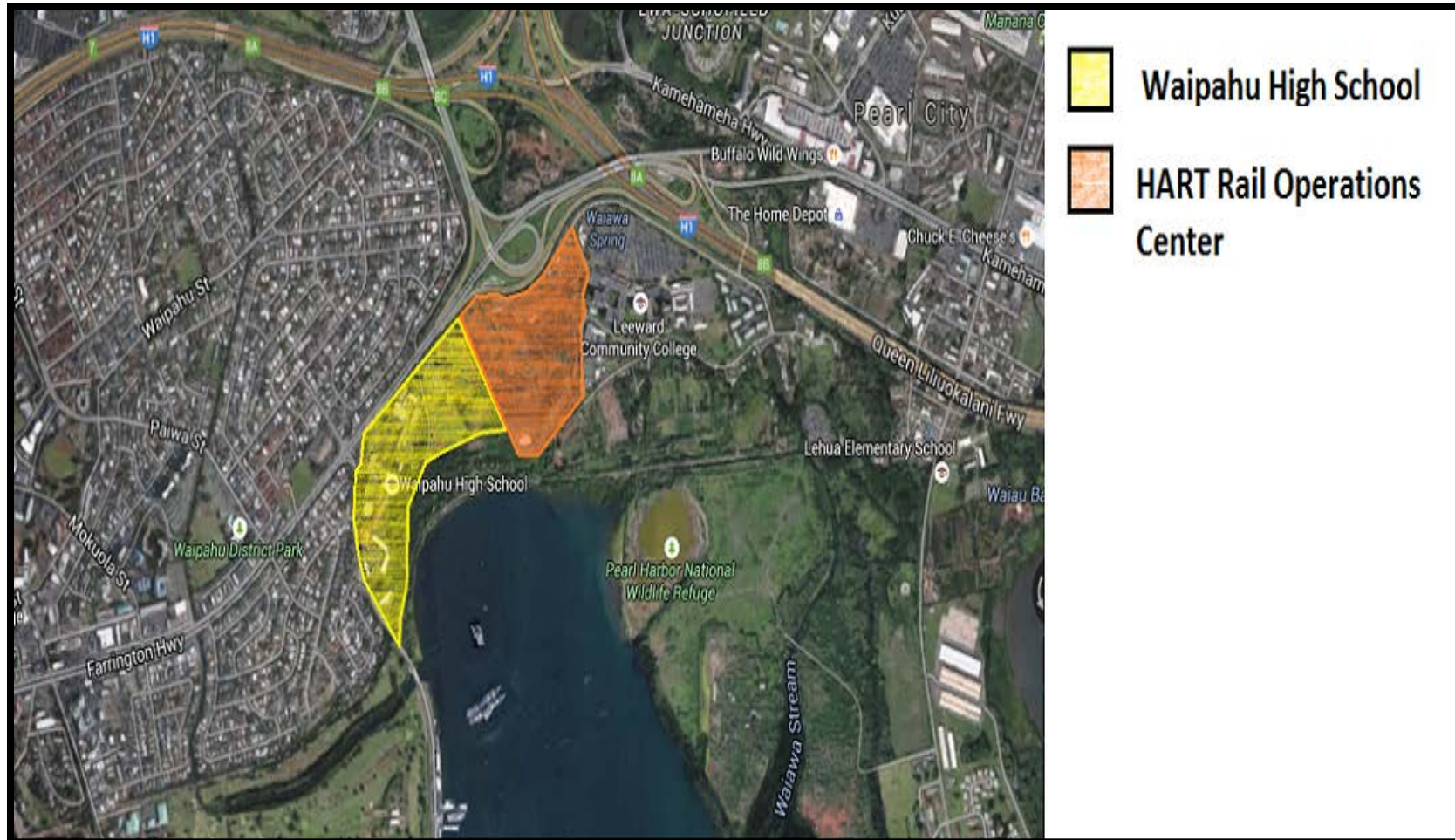
Leilehua Complex Whitmore Project



Creating the industry within a region:
Leilehua Complex will create the
Whitmore Project as an agribusiness
and ag-tech career pathway.

Waipahu Complex

HART Rail Operations Center



Identifying the industry within a region: Waipahu Complex has identified the Honolulu Authority for Rapid Transportation (HART) as a career pathway.

Waipahu Complex

QMC West Oahu



Identifying the industry within a region: Waipahu Complex has identified the Queens Medical Center – West Oahu (QMC) as a career pathway.

3. Engage.

Engage leaders and discuss employer needs and industry requirements for employment.

Silos to Synergy

- The engagement of diverse backgrounds will break administrative silos
- Government, industry, and education must be aligned to ensure Hawaii's graduates have viable opportunities
- Assess, Create, and Identify industries and schools to produce a live, learn, work, play community



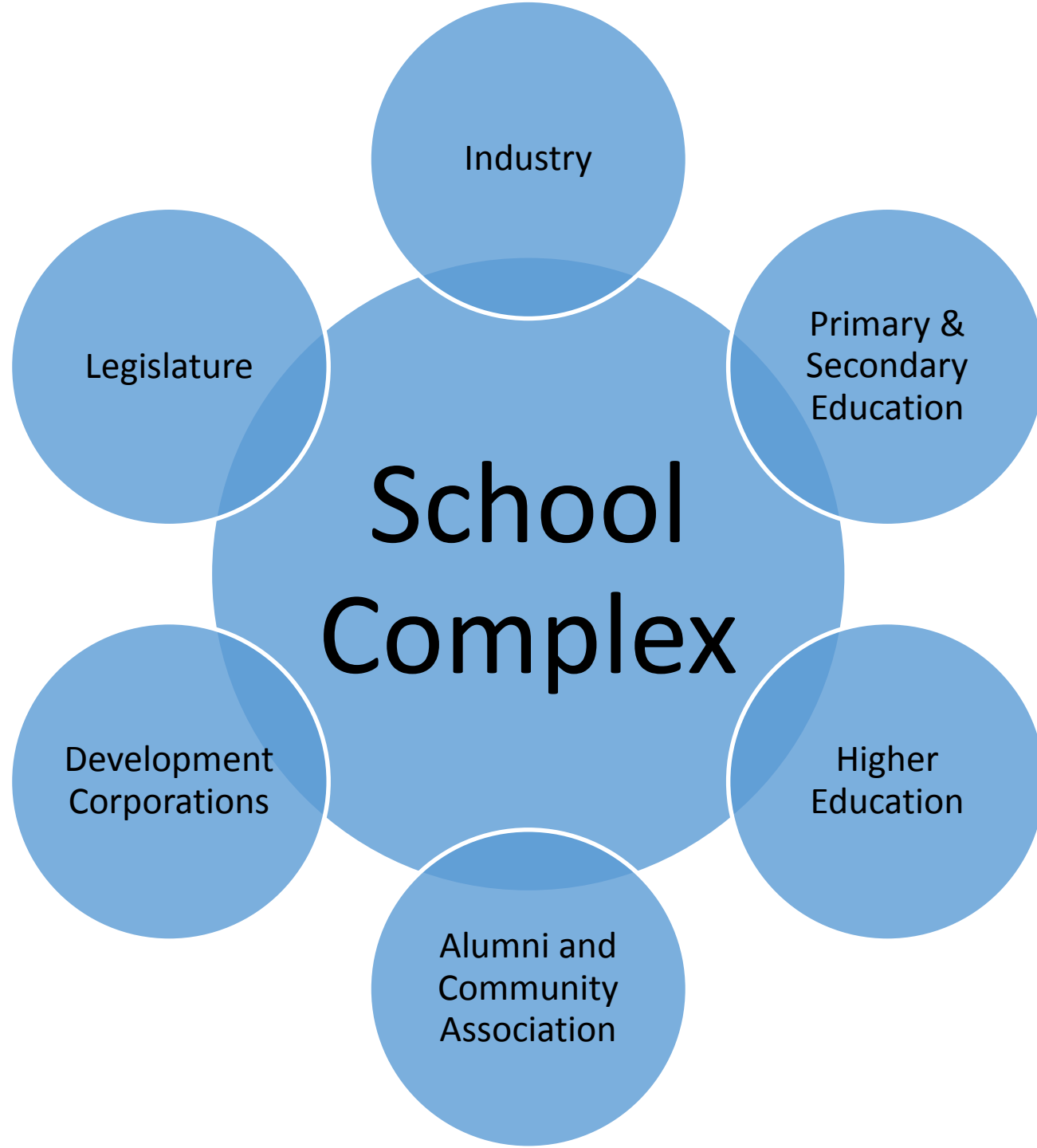
Hawaii Coffee Co.



- Hawaii Coffee Co. needs 50 employees that are equipped with the skill sets that they are seeking
- Skilled Workers (Fabrication, Processing, Tech-Savvy)
- Teamsters Local 996 job opportunities (living wages, medical coverage, pension)
- Outsourcing of employment
- Partner with HIDOE to provide students with workforce training dedicated to necessary skills
- No alignment for educational curriculum and industry needs
- High Value Certification or Non-credited workforce skill curriculum
- Post-secondary education not needed



High school complexes must realize that not all graduates will have the financial viability or interest to continue on to college. School complexes must partner with state agencies, the state legislature, and the local industry to prepare our graduates for career readiness.



"Waipahu High has become the pipeline between the student clientele and the industry. We strive to have our students ready for careers."

- Keith Hayashi
Waipahu High School, Principal

4. Assess.

Assess capacity at school and complex.

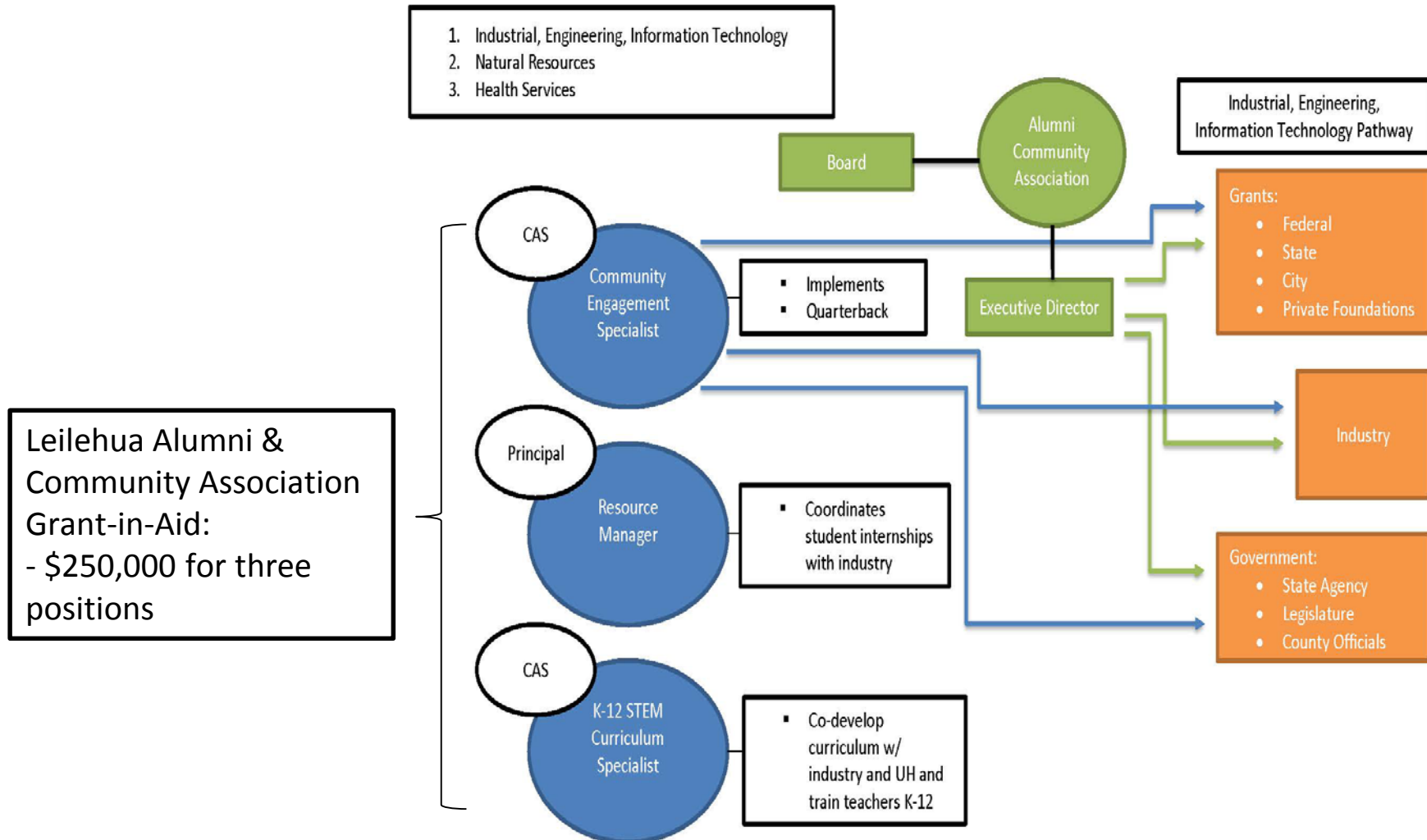
High school complexes must assess three critical categories:
(1) whether or not the school has the capacity to develop industry partnerships and curriculum alignment;
(2) if the infrastructure meets the needs for the career pathway.

Internal Capacity

Physical Facilities

Internal Capacity

Necessary Administrative Infrastructure



There are three positions that are essential to implementing this program; a community engagement specialist & K-12 STEM curriculum specialist who will be under the Complex Area Superintendent, and a resource manager who will be under the school principal. An alumni community association will be needed to facilitate grant opportunities that the DOE cannot leverage.

Internal Capacity

Alumni and Community Association

- Alumni and Community Associations (ACA) are 501(c)3 nonprofits created on the basis of raising funds to support schools.
- An ACA gives programs the option to seek grants
- This intermediary component becomes essential to all school complex career pathways.
- Duplication of ACA model
- The ACA will assist all feeder schools



**Lellehua Alumni &
Community Association**

Assessing the complex pathway:

- Arts & Communication
- Business
- Health Services
- Industrial and Engineering Technology
- Natural Resources
- Public and Human Services

Principals are attempting to house all six pathways in their schools. Schools should focus on an academy that compliments the surrounding industry.



5. Develop & Align.

Develop precise alignment to workforce readiness.

Keiki to Career Curriculum

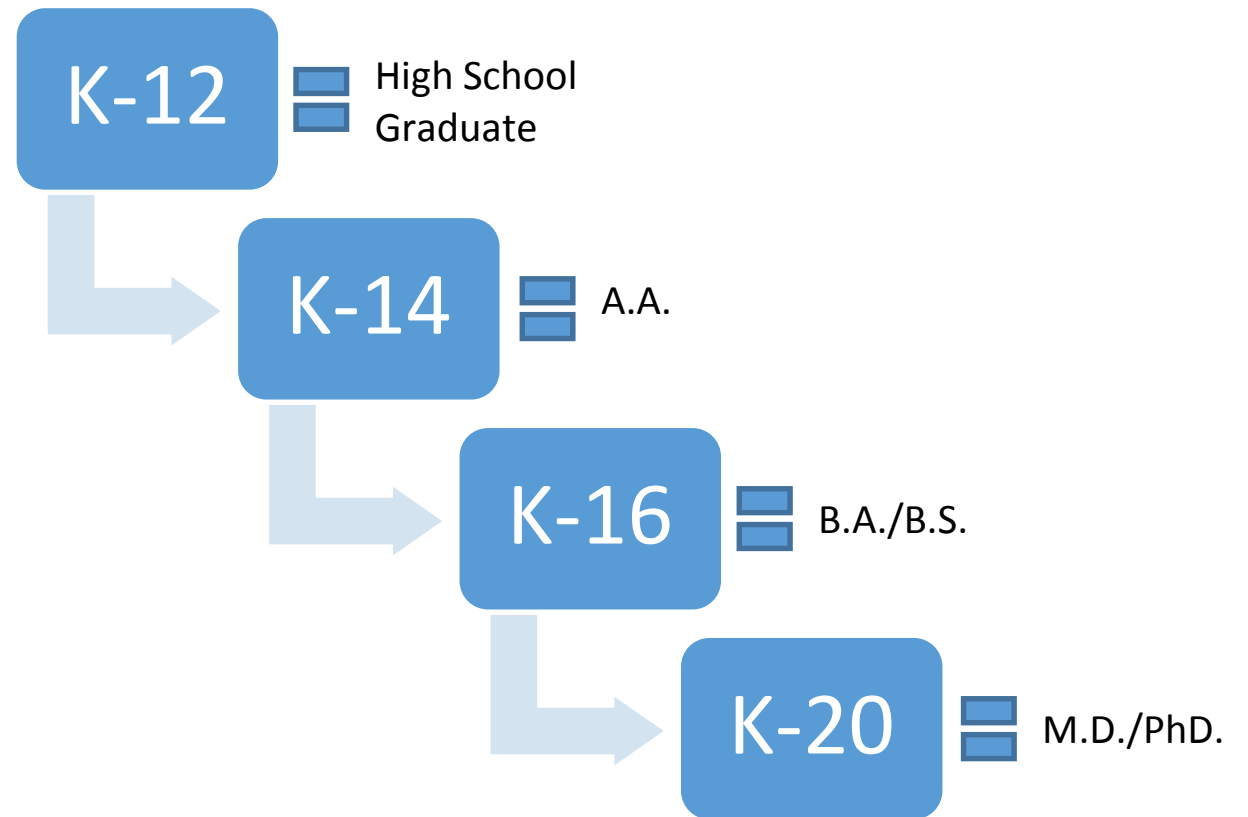
- This curriculum will establish a year-round program for high school and post-secondary students incorporating science, technology, engineering, and mathematics so students are prepared in the Agribusiness Technology; Cyber Security & Data; Healthcare; and Information Technology in the Industrial Engineering Technology Pathway and are ready to succeed both in and out of school.
- Hawaii's **STEM/IT** industry stands to provide **64,000 jobs**.

Curriculum & Pivot Points

We need to identify/align the career and its **pivot points**. Once aligned, you can pin point areas in the education pipeline where the student can transition from education to career. Currently, the model is too focused on college readiness and continuing education.

NSA Careers:

- Computer Science
- Computer/Electrical Engineering
- Mathematics
- Foreign Language
- Intelligence Analysis
- Cryptanalysis/Signals Analysis
- Information Assurance
- Installation & Logistics
- Business
- Security
- Others



Workforce Strategy

K → 5th Grade

Hands on investigations for self interest

Personal judgments and decision making

Collaboration & team work-systematic problem solving (design process)

6th → 8th Grade

Design process problem solving (design process)

Project based learning tied to the community

Self application to real world problems

Collaboration with leadership roles

9th → 12th Grade

Student driven problem solving (design process)

Project based learning using evaluation techniques

Self innovation in designing solutions to real world problems

Complex learning in a collaborative setting

Professional Teachers & Professionals Teaching

Professional Teachers

- Professional teachers have been trained in teaching methods to assist in imparting knowledge to students
- BEd/EdM

Professionals Teaching

- Teaching professionals are subject matter experts in their particular areas of research
- MD/PhD

Oversight by the department's certified educator and a volunteer expert will facilitate **co-teaching opportunities** exposing students to professionals that can provide them in-depth training and knowledge (i.e. foreign languages).

Hawaii 3 to 6

Senate Concurrent Resolution 185

Requesting the Department of Education to organize and coordinate out-of-school programs for kindergarten through twelfth grade, and identify funding opportunities for current and future Department of Education out-of-school programs

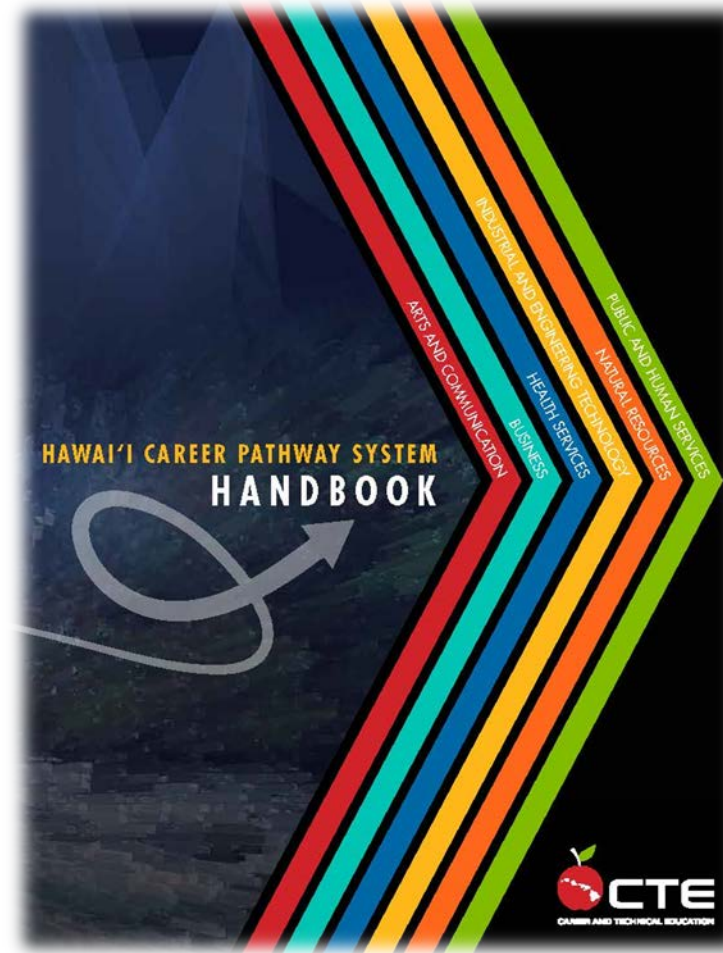
- Hawaii 3 to 6 will be the comprehensive out-of-school program that will be used to fund K-12 out-of-school programs. Through expanded funding, Career & Technical Education will work on student workforce readiness, facilitate internships, and prevent students from participating in risky behaviors



Career & Technical Education

CTE:

- Hawaii 3 to 6 will provide funding to expand CTE opportunities
- Diversify programs by including vocational training as an out-of-school program
- Align CTE curriculum to industry needs
- Credit recovery program
- Internships, job shadowing, mentorships
- Out-of-school co-teaching program



Dual Credit & Jump Start

Dual Credit Program

Statewide program between the University of Hawaii and the Dept. of Education that provides an opportunity for academically qualified high school students to enroll in college classes through the UH system as part of their high school coursework.

- Available to grades 9 – 12
- Scholarship opportunities for low-income students
- Guarantees both high school and college credits

Jump Start Program

Partnership between GEAR UP, the University of Hawai'i (UH) and the Department of Education (DOE) to provide qualified seniors early access to vocational/technical education opportunities on a college campus. Students take coursework that fulfills requirements for a two-year college degree as well as their high school diploma.

- Establishes a ready workforce
- Provides options for students who want to enter the workforce

6. Plan.

Develop school campus facilities plan to reflect pathway focus.

Campus Facilities



- Retrofit old schools & master plan new schools to the complex career pathway
- Schools should be constructed to have different “houses” of career pathways
- Industries will invest if pathway produces a ready workforce

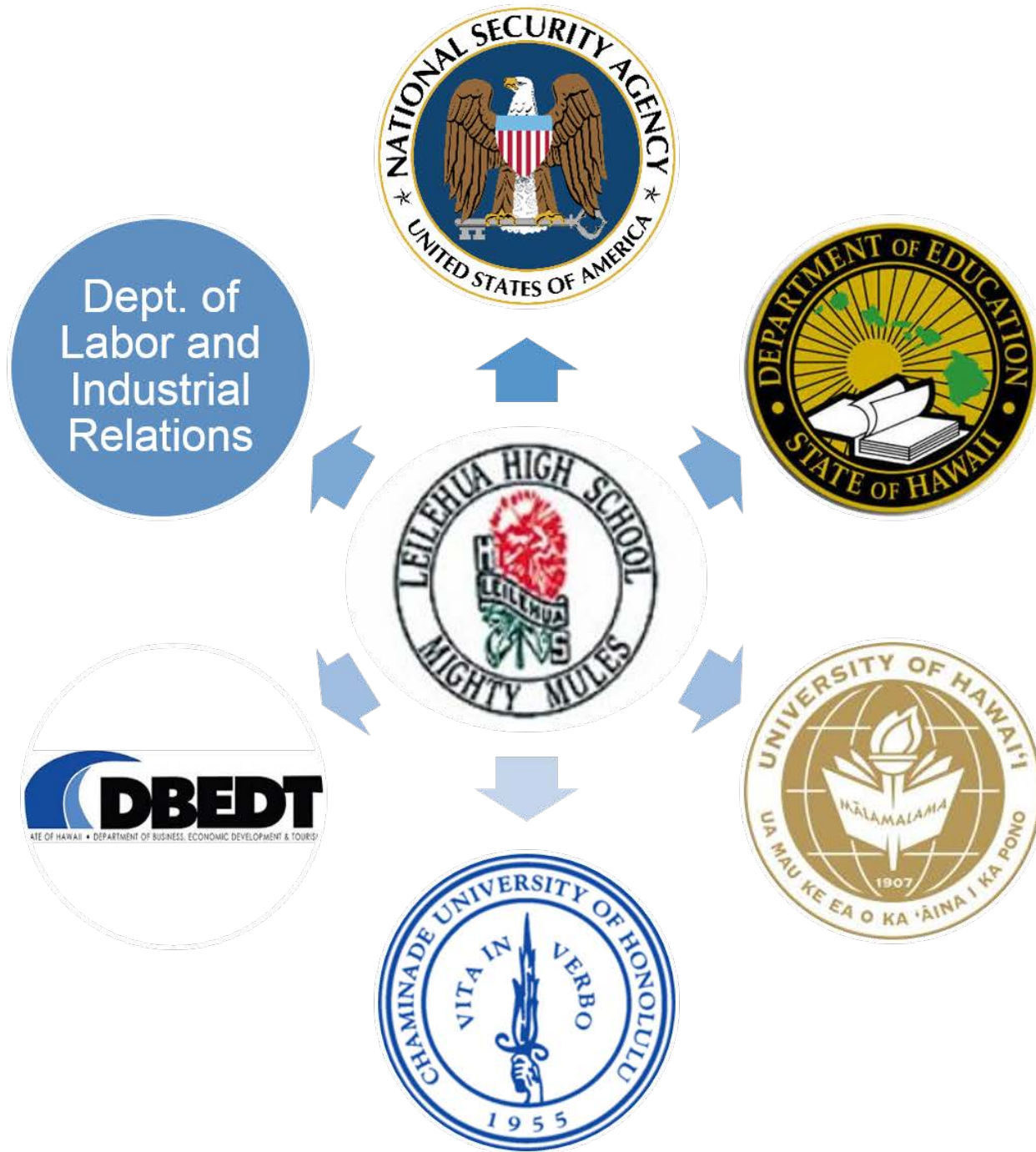
21st Century Schools

Rejuvenation & Sustainability

- Session Laws of Hawaii 2013, Act 155
- Optimizes the use of public school lands to generate opportunities to improve public school facilities and infrastructure to meet the challenges of the twenty-first century and to improve the overall quality of education in Hawaii
- Generate revenue from uses for public purposes, such as workforce housing, to build and retrofit twenty-first century schools and create more school-centered communities.

7. Identify.

Leilehua High Partners: NSA; Whitmore Project; First Responder's Technology Park;
Pacific Institute on Technology & Aging



Recognizing that NSA as identified career pathway, Leilehua High School should partner with NSA, DOE, University of Hawaii, Chaminade University, DBEDT, and DLIR to align the curriculum to industry needs. By partnering with private and public entities industries will eliminate siloes that have stifled economic growth and job creation in Hawaii.

Curriculum Non-Alignment

DOE Languages

CHINESE

Filipino

French

German

Japanese

KOREAN

Latin

RUSSIAN

Spanish

Leilehua Language Electives

German

Japanese

Spanish

NSA Foreign Languages

Arabic

CHINESE

KOREAN

Persian Farsi

RUSSIAN

NSA's foreign languages should be the basis of all foreign language courses offered at Leilehua. The current electives do not reflect the surrounding industry.

Education & Workforce

(Comprehensive Strategy)

Phase I Short Term

June – December 2015

June: Meet with legislators

July: Establish Standing Working Group
Committee

July: Gov release funds for LACA

July: Assign tasks, benchmarks, deadlines

July - December: Finalize course
curriculum for Curriculum Brochure

Phase II Mid Term

January – July 2016

January: Students select courses for
School Year 2016

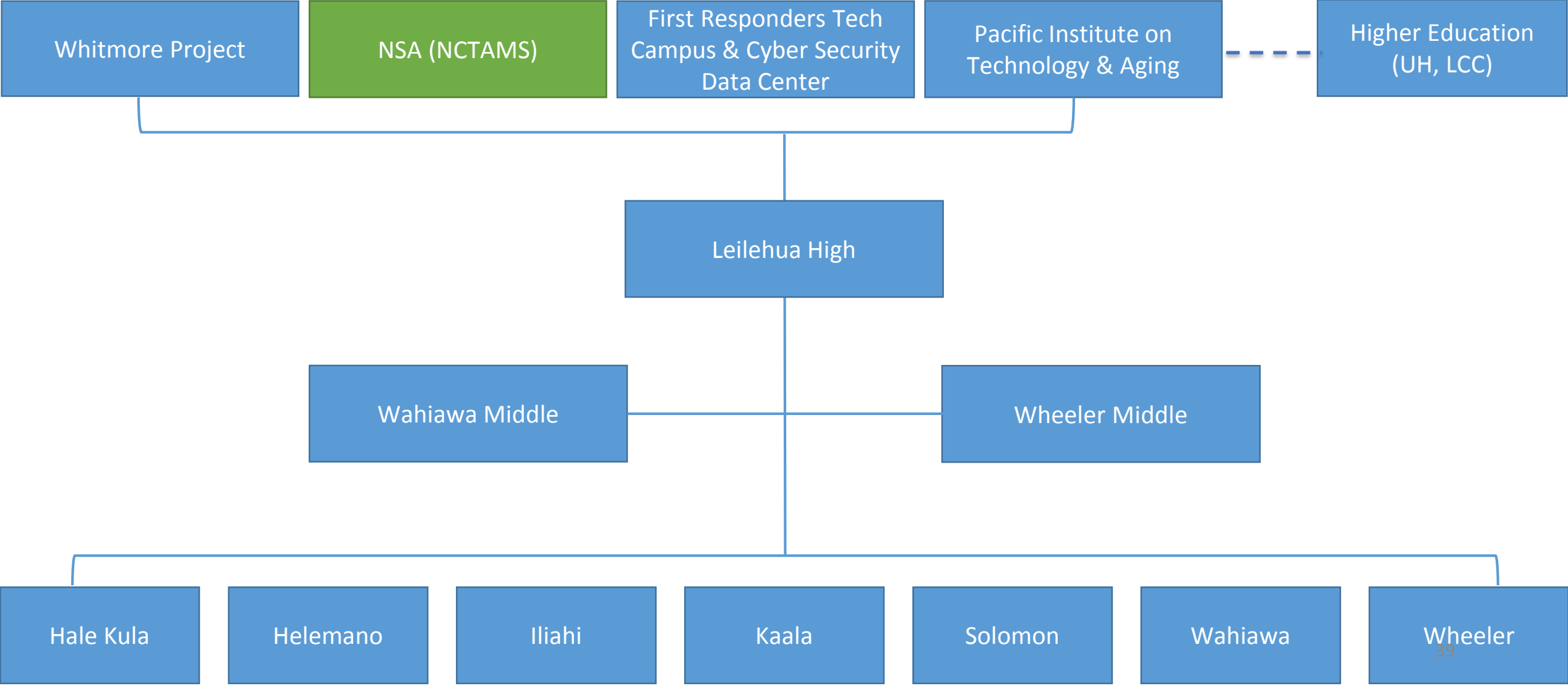
July: 1st QTR begins – Students Grades 9
– 12 actively engaged and studying
curriculum

Phase III Long Term

July - 2016+

Align curriculum for K – 5th Grade / 6th –
8th Grade

Leilehua Complex Career Pathways



NSA Programs

Programs	Pivot K - 12	Pivot K - 14	Pivot K - 16	Pivot K - 20
Computer Science, Engineering and Mathematics		✓	✓	✓
High School Programs	✓			
Internship Programs			✓	✓
Stokes Educational Scholarship	✓			
Cooperative Education Program		✓	✓	✓

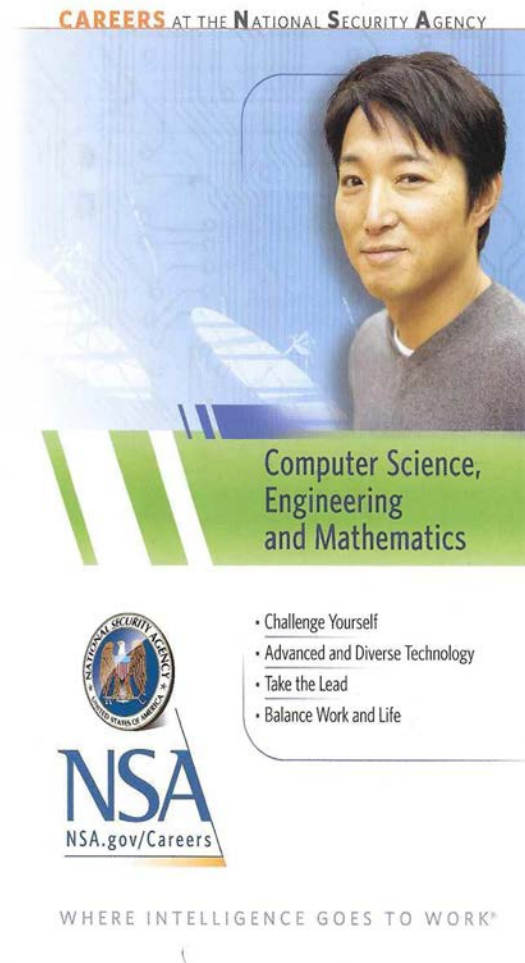
***80%** of NSA program participants return for **permanent employment** after college graduation, the other **20%** are **recruited** by other intelligence and defense agencies (i.e. Dept. of Homeland Security, FBI).

- High School Interns GS-2 Security Clearance
- College Interns GS-6 Security Clearance

Computer Science, Engineering and Mathematics


Opportunities:

- Computer Science
- Computer/Electrical Engineering
- Mathematics
- Technical Skills
- Information Assurance
- Signals Analysis
- Cryptanalysis
- Collection
- Development Programs



CAREERS AT THE NATIONAL SECURITY AGENCY

Computer Science,
Engineering
and Mathematics



NSA
NSA.gov/Careers

- Challenge Yourself
- Advanced and Diverse Technology
- Take the Lead
- Balance Work and Life

WHERE INTELLIGENCE GOES TO WORK®

The graphic features a portrait of a man against a blue background with circuit patterns. Below the portrait is a green banner with the text 'Computer Science, Engineering and Mathematics'. To the left is the NSA seal and logo. To the right is a list of benefits. At the bottom is the slogan 'WHERE INTELLIGENCE GOES TO WORK®'.

High School Work Program


Available HSWS Positions:

- Office Assistant
- Computer Aide
- Vo-Tech
- Model Shop

CAREERS AT THE NATIONAL SECURITY AGENCY



High School Programs



- Gain Experience
- Challenge Yourself
- Earn a Salary
- Make a Difference

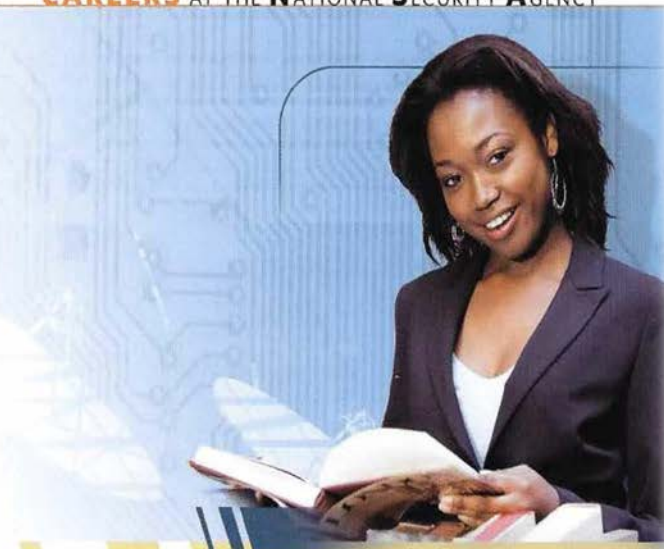
NSA
www.NSA.gov/Careers

WHERE INTELLIGENCE GOES TO WORK®


College Internship Programs

- Summer Intern Program for Science and Technology (SIP/ST)
- Director's Summer Program (DSP)
- Cryptologic Access Summer Intern Program (CAP)
- Installation & Logistics (I&L) Intern Program
- Cryptanalysis and Exploitation Services Summer Program (CES/SP)
- Graduate Mathematics Program (GMP)
- Intelligence Analysis Summer Program
- CAE in Cyber Operations Summer Intern Program
Summer Intern Program for Informational Assurance (SIP/IA)
- Computer Science Intern Program (CSIP)
- Summer Language Program
- Summer Program for Operations Research Technology (SPORT)
- Cyber Summer Program (CSP)
- Human Resources (HR) Intern Program
- Occupational Health, Environmental and Safety Services (OHESS) Intern Program

CAREERS AT THE NATIONAL SECURITY AGENCY



Internship Programs



NSA
NSA.gov/Careers

- Gain Experience
- Challenge Yourself
- Earn a Salary
- Make a Difference

WHERE INTELLIGENCE GOES TO WORK®

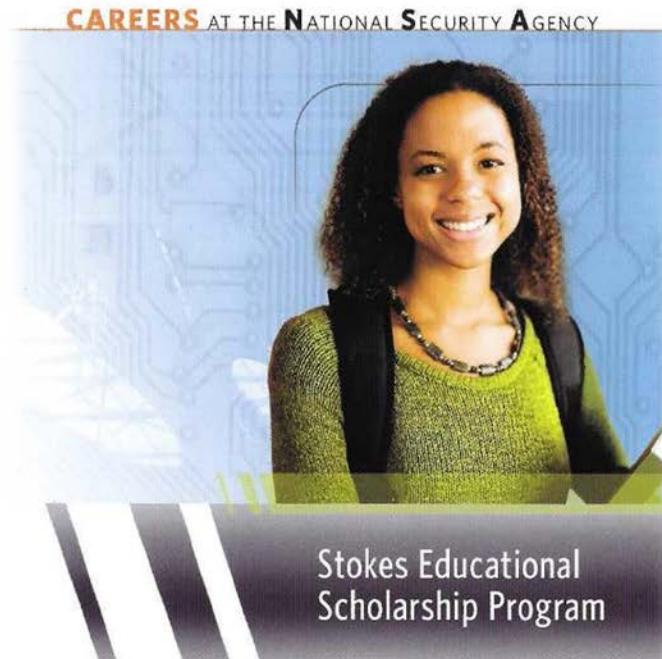
Stokes Educational Program

Qualified Career Fields:

- Computer Science
- Computer or Electrical Engineering
- Geared towards minority students

Benefits

- Paid Tuition up to \$30,000 per year
- Year-round salary
- Agreement to work for NSA for at least one-and-one-half times the length of study upon graduation

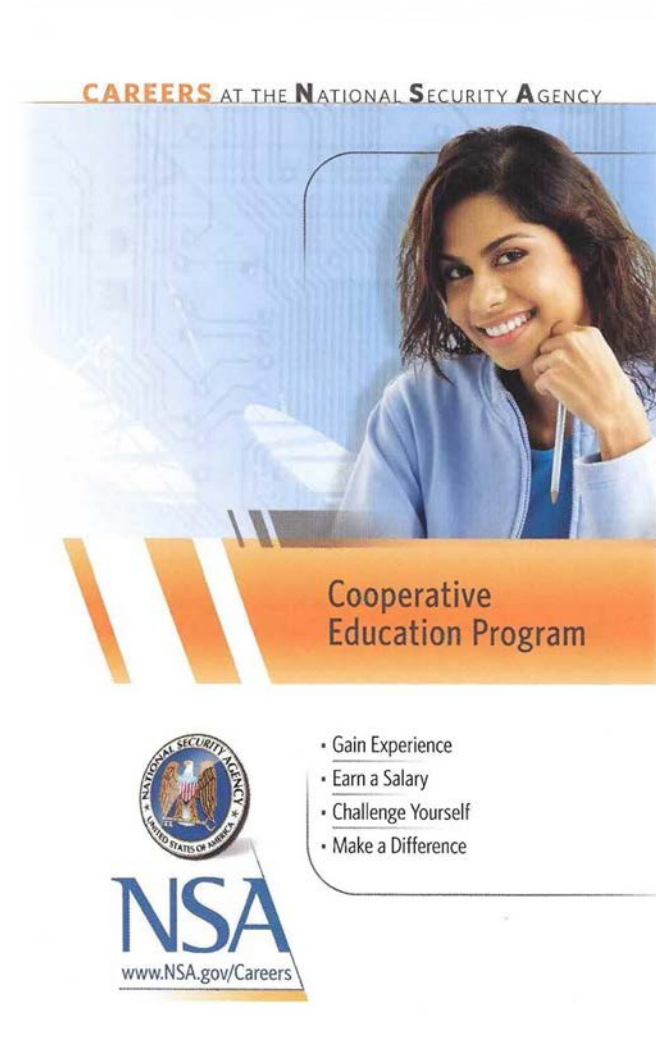


- Paid Tuition up to \$30,000 per Year
- Year-round Salary
- Rewarding Work Experience
- Guaranteed Employment

WHERE INTELLIGENCE GOES TO WORK®

Cooperative Education Program


- Electrical or Computer Engineering Majors
- Computer Science Majors
- Rotational program as full-time employee and full-time student from entry into the program until graduation
 - 52 weeks of co-op work experience
 - 40-hour weeks
- Competitive Salaries determined by the percentage of credits completed toward a degree



CAREERS AT THE NATIONAL SECURITY AGENCY

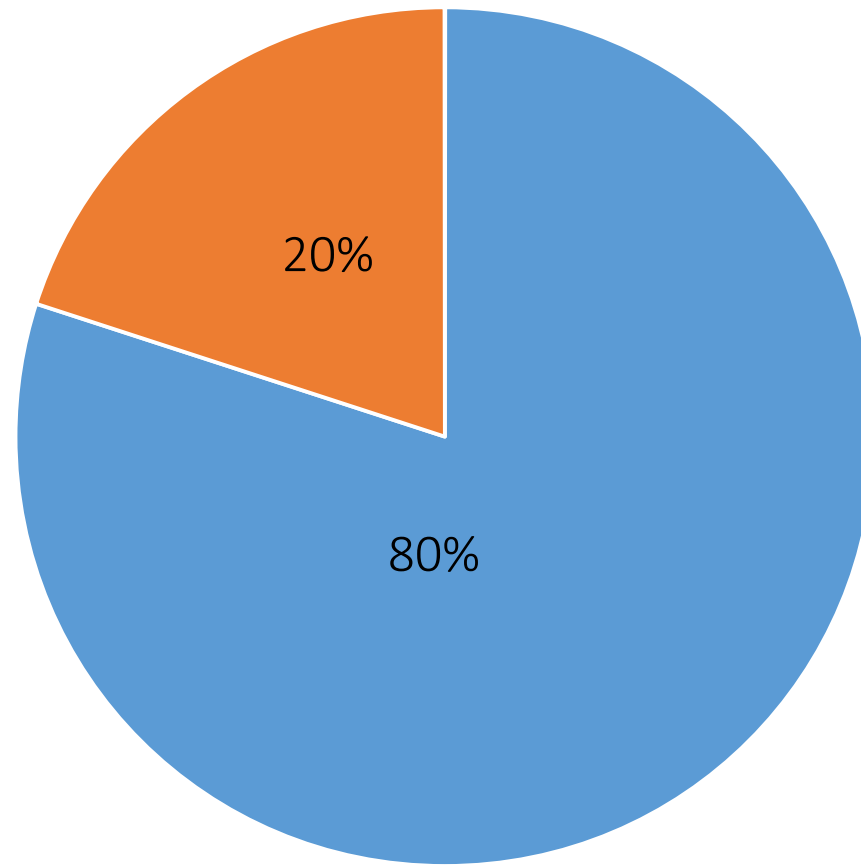
Cooperative Education Program

- Gain Experience
- Earn a Salary
- Challenge Yourself
- Make a Difference


NSA
www.NSA.gov/Careers

WHERE INTELLIGENCE GOES TO WORK®

NSA Hawaii Workforce



■ Military ■ Civilian

NSA Hawaii Employment

NSA Hawaii has recognized that outsourcing workforce results in frequent turnovers. This culture will be changed by recruiting local employees for extended periods.

- 3000 employees
- 80 vacant positions

NSA Hawaii also recruits high school and community college/university interns.

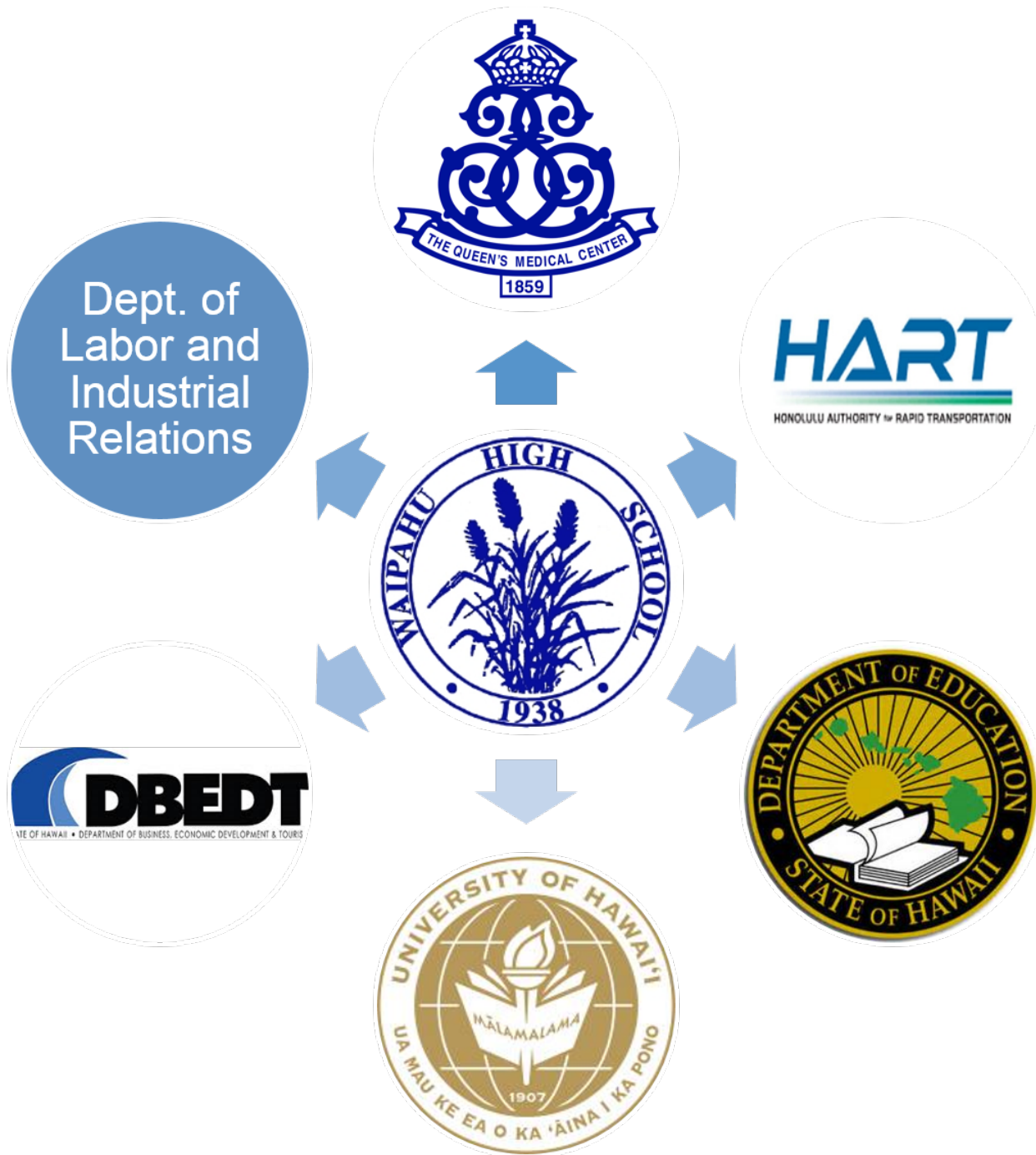
- 13 high school interns
- 24 university interns
- Minimum of 20 hours per week
- Vets 75-100 for high school interns
- Vets 100+ for university interns

Hawaii Business Roundtable & Hawaii State Teachers Association Internships

- 12 teacher internship positions
- 3 to 5 day internships
 - Intelligence Community
 - Teachers with education professionals on leadership (DRIVE)
 - Focus on security briefings (including STEM and cryptology)

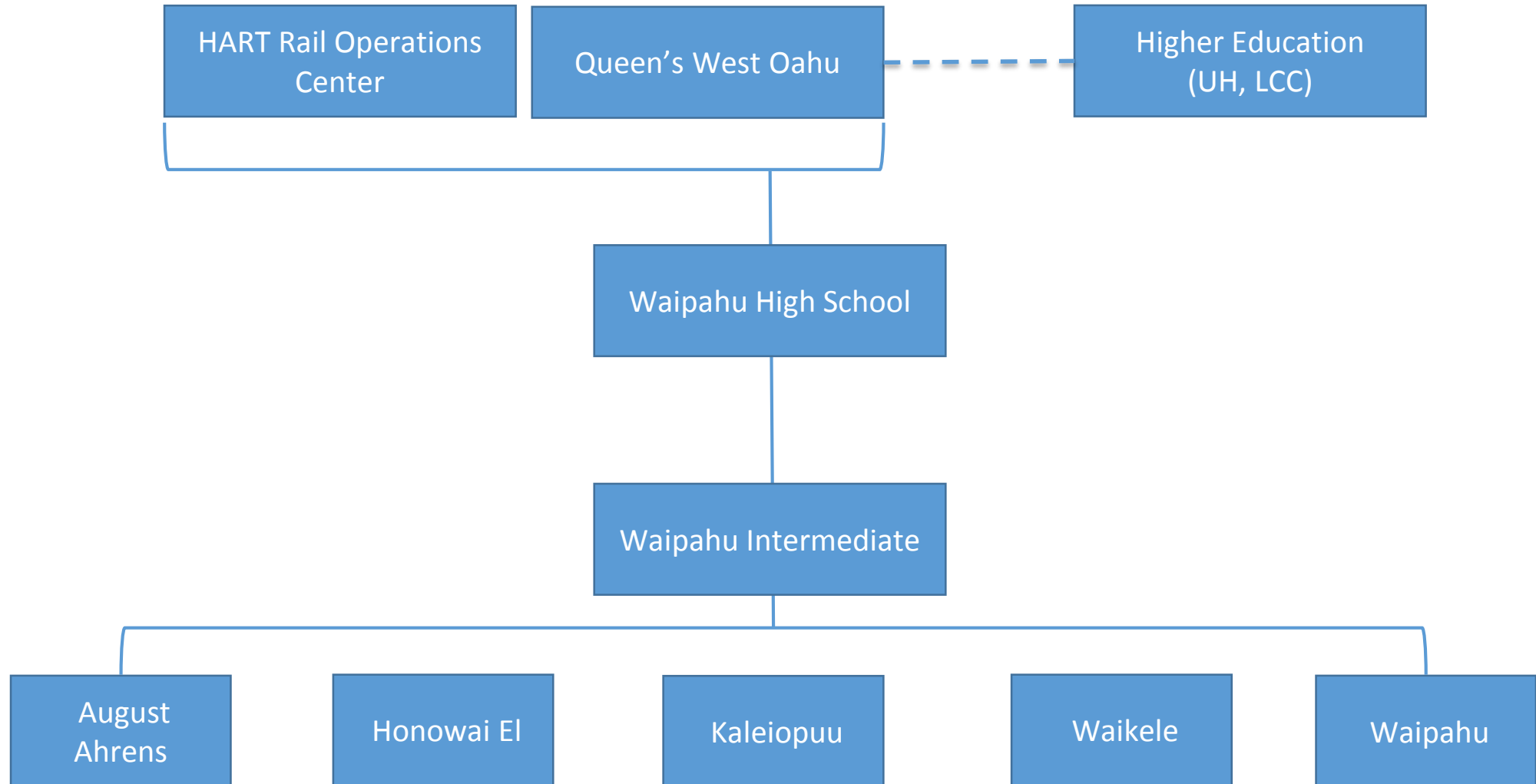
8. Identify.

Waipahu High School: Honolulu Authority for Rail Transit; Queens Medical-West
Oahu



Recognizing the HART Rail Operations and Queen's West Oahu as an existing career pathways, Waipahu High School should partner with HART, Queen's, DOE, University of Hawaii,, DBEDT, and DLIR to align the curriculum to industry needs. By partnering with private and public entities industries will eliminate siloes that have stifled economic growth and job creation in Hawaii.

Waipahu Complex Career Pathways



HART Rail Operations Center



Transit Services

- Operations & Servicing

Monitor and control all the the rail transit vehicles as they move through the system, stations, and the rail operations and control center

- Maintenance of Way

Inspect and repair the guideway, stations and track

- Train Wash

Operating the train wash facility that will be used to clean the exterior of the rail vehicles

- Wheel Truing

Maintenance of vehicle wheels

Service

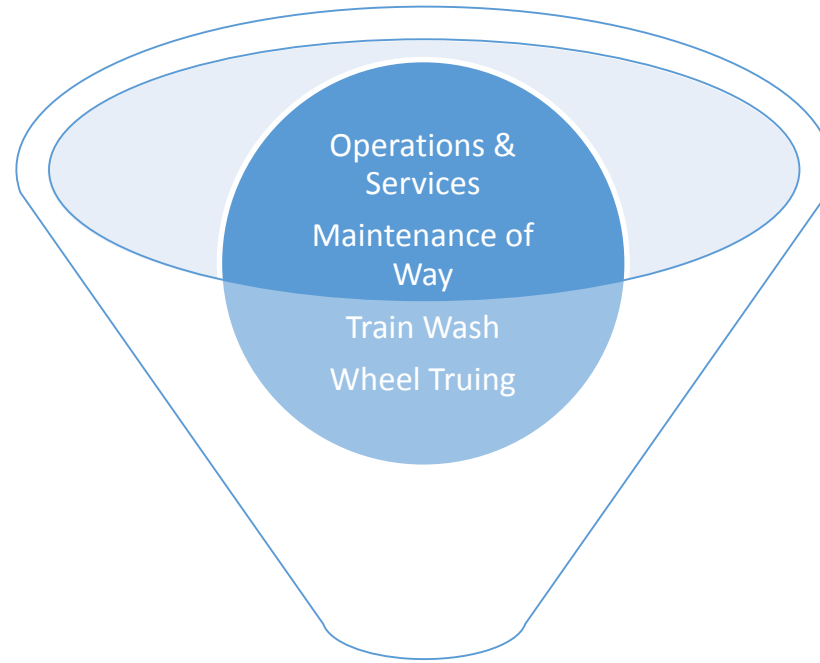
- 80 Railcars
- 40 Miles of Track
- 21 Stations
- East Kapolei to Ala Moana
- Stations w/ Parking
- 4a – 12a Weekdays*
- 6a – 12a Weekends*

Operations

- 300 +/- Employees*
- 12 Departments
 - Safety, Health & Environment
 - Customer Service
 - Operations
 - Maintenance of Way
 - Railcar Maintenance
 - Systems Maintenance
 - Operations
 - Customer Service
 - Information Technology
 - Human Resources
 - Engineering
 - Finance

*"The commitment from Ansaldo Joint Venture is that **99 percent** of the employees that will be working at this site in the future, (and) the **300** or so people who will actually work across the system, will be **local people.**"*

- Dan Grabauskus
HART, Executive Director & CEO



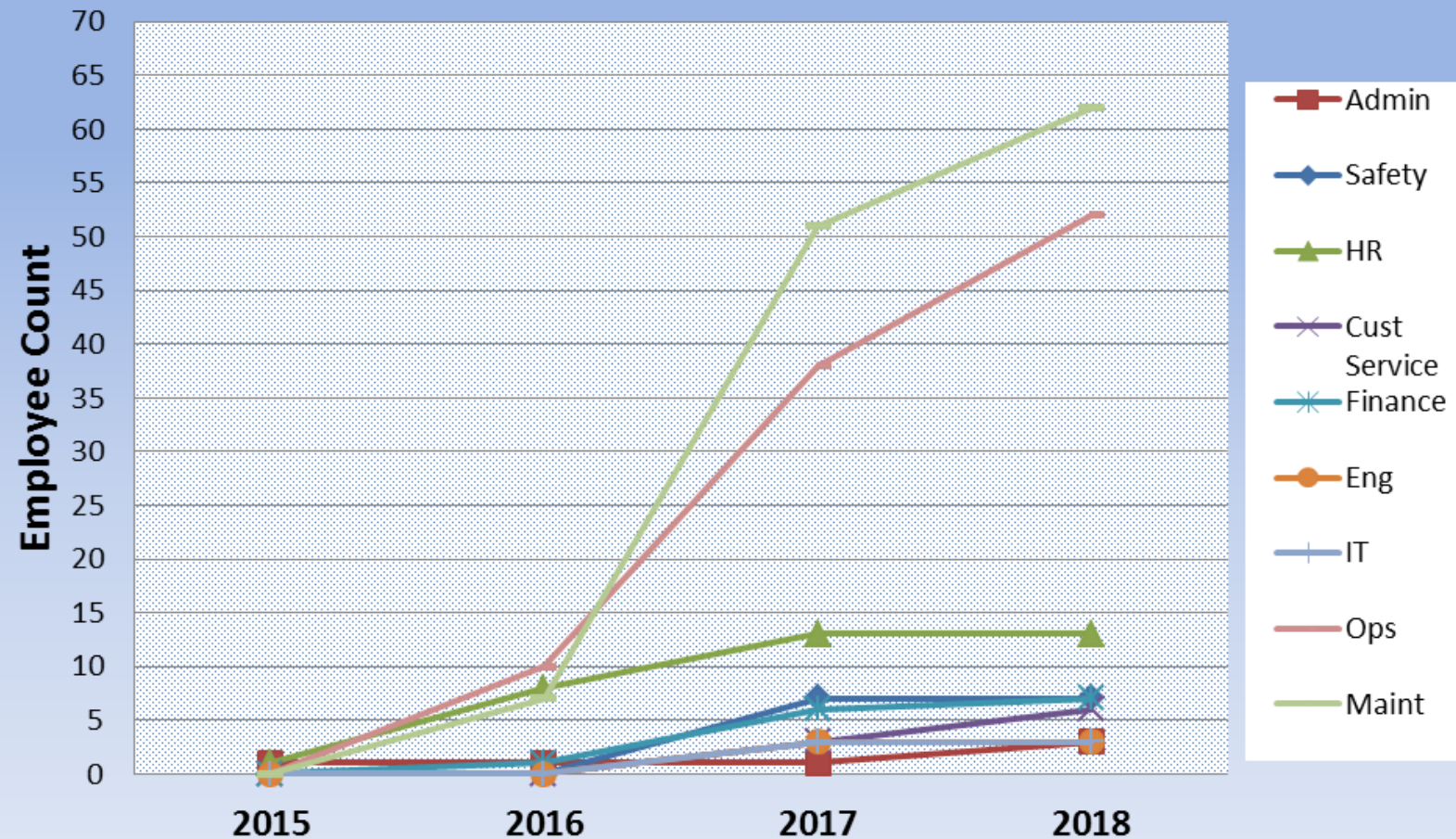
300 Employees by Completion of Center

150 Employees within next two years

* *HART's **local employees** currently comprise **65%** of its entire workforce*

Hiring Timeline

O&M IOMP Mobilization FTE Staffing by Dept



HART needs over 200 employees for its operations and maintenance departments by 2018.

Queen's West Oahu

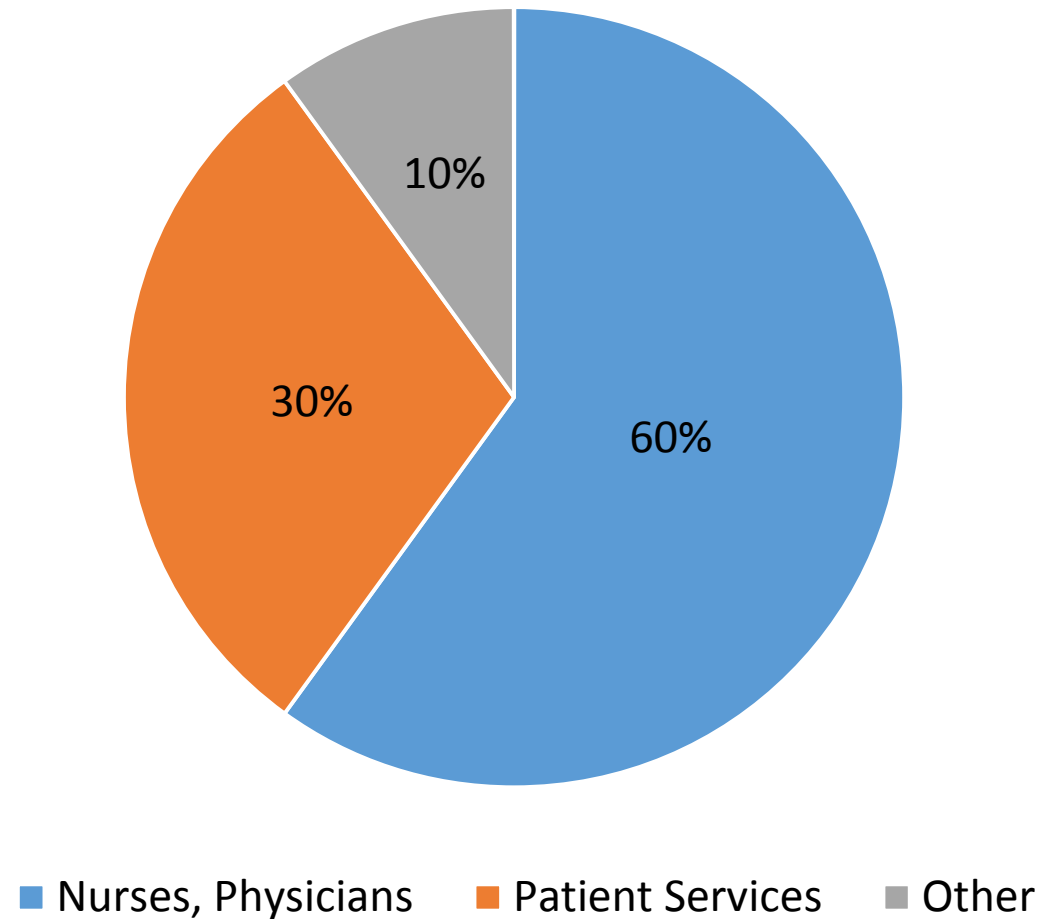
Facilities:

- 10 ICU beds
 - 40 Telemetry beds
 - 30 Medical/Surgical beds
 - 4 Operating Suites
 - 2 Endoscopy Suites
 - 23 Emergency Department bays
-
- 500-employee force
 - Over 50% live within the area

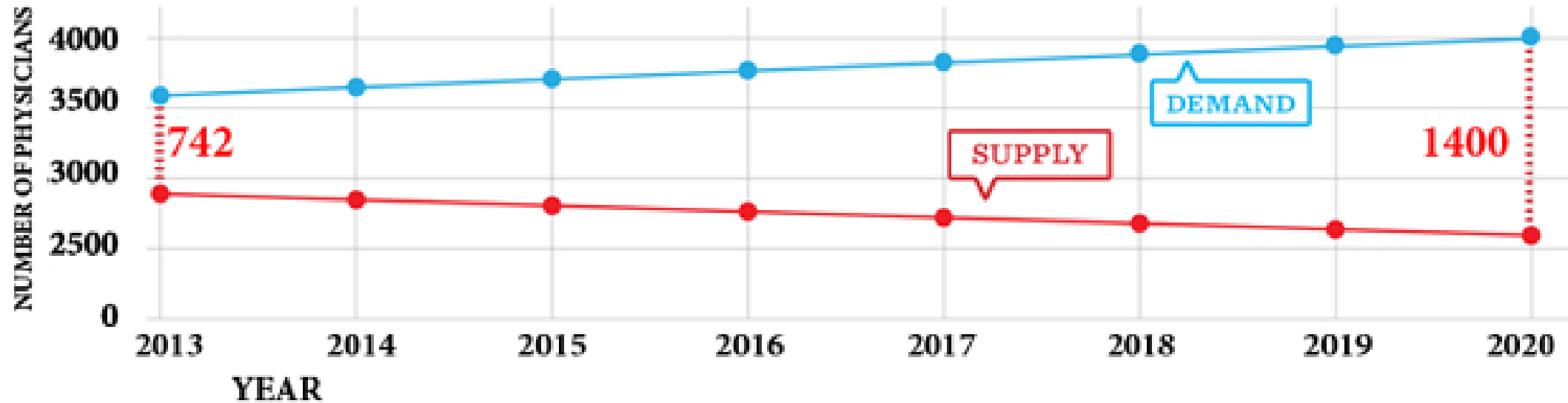


Queen's West - Workforce

Employee Composition



THE GROWING GAP: Hawaii Physician Supply and Demand Projections



*“The **demand** has always been there and, with the population growing, we expect to see more. We’ll need to get more staff, and we’ll use flyers. There is a **nursing shortage**, and a **skill-set shortage** of specialty needs, including critical care, emergency room, surgery and behavioral health.”*

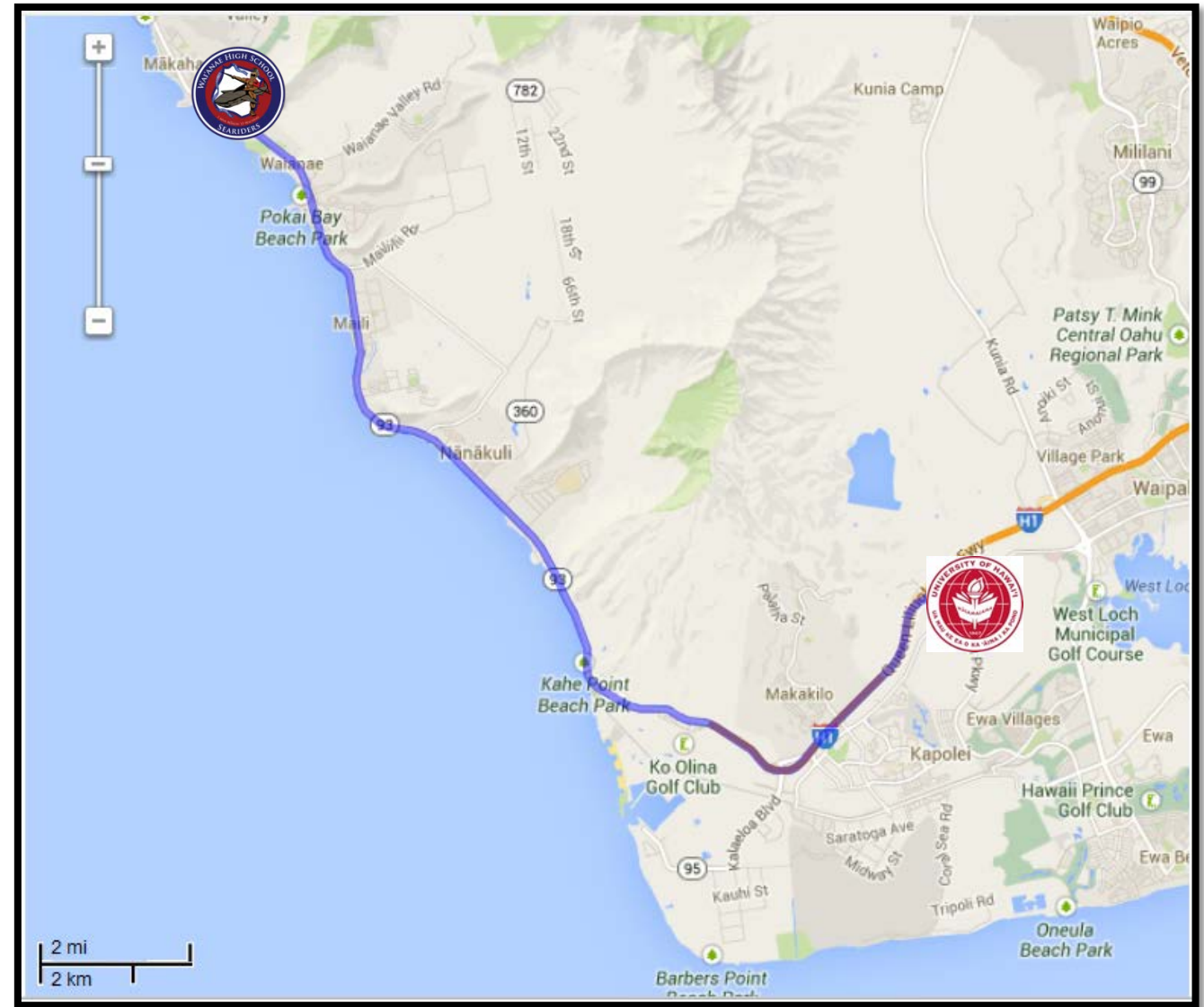
- Art Ushijima
The Queen’s Health Systems, CEO

9. Create.

Future Partnerships

Creative Media Complex → Waianae High School *Creating an Industry*

- Waianae Seariders Production
- Waianae High School and UH West Oahu cultivate students with talents in creative media, but Hawaii lacks a vibrant film industry. Similar to the Whitmore Project, a Film Media Technology Campus could be created on vacant state property as a new industry in West Oahu.
- A new industry could be born in Oahu's second city
- Live, Learn, Work, Play will truly be achieved in West Oahu



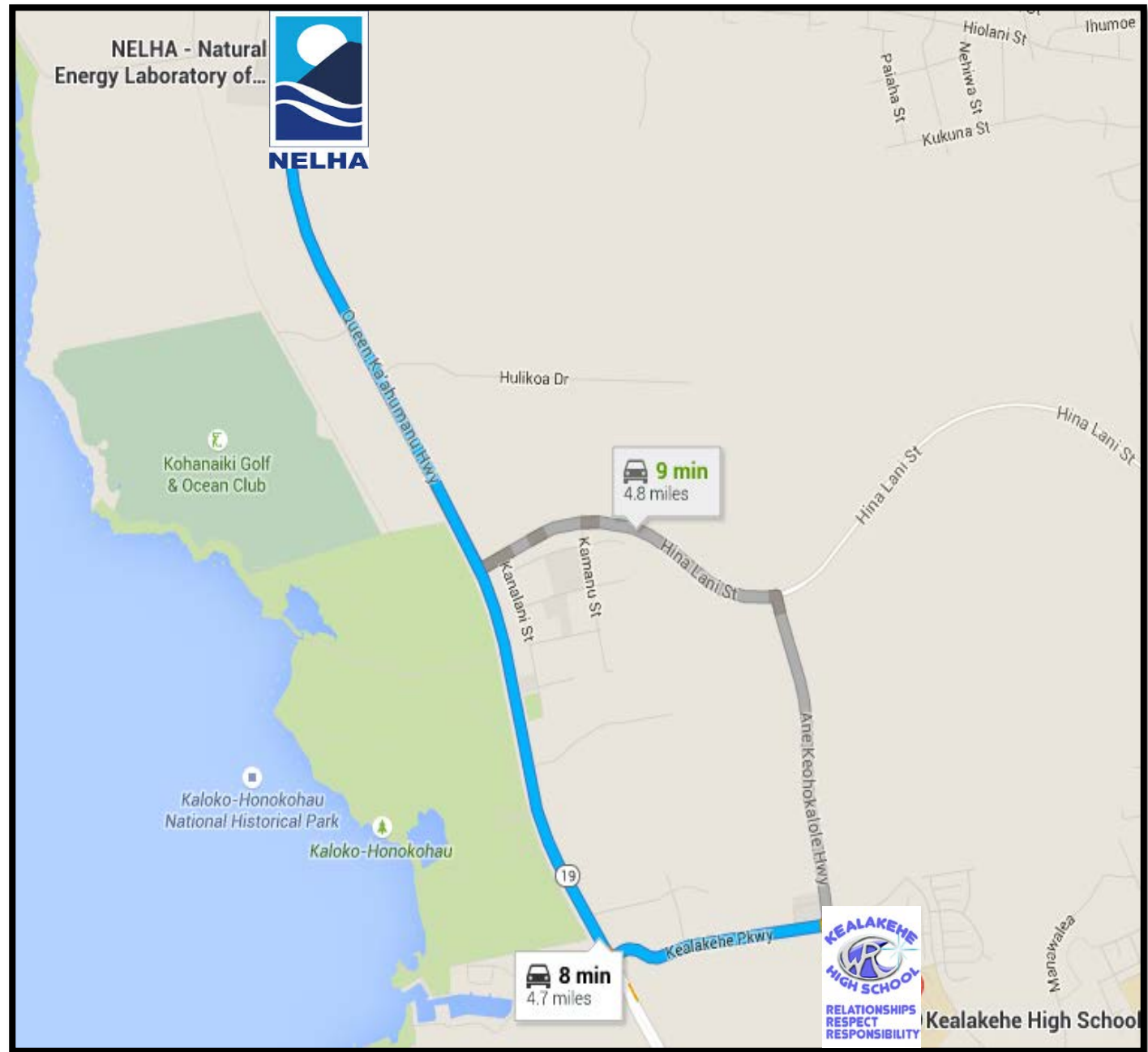


NELHA → Kealakehe High School

Identifying an Industry

- NELHA is an ocean-research and commercial facility that serves as a tech park for more dozens of businesses, including some of the state's most cutting-edge renewable energy and aquaculture projects.
- 52% of the Kealakehe's student body is categorized as being economically disadvantaged

NELHA produces **\$100 million** for Hawaii's economy and is capable of employing over **600 employees**.





Dept. of
Labor and
Industrial
Relations

10. Attract Investment.

Attract Funding Opportunities with Private Partners

Private Sector Investment

- The State lacks funding to maintain or retrofit its antiquated campuses
- Private sector buy-in is critical to program development
 - Donors
 - Social Organizations
 - Curriculum Development
 - Facility Modernization

Investment into our education system will always improve program development, facilities, and most importantly provide jobs for our local graduates

