Learn

Live Work , Play

A regional strategy for workforce readiness and economic development

A plan to provide living wage and tech jobs to students upon graduation in their community

Developing a Cyber Security Pathway at Leilehua Complex

1. Economic history of Wahiawa and student statistics
2. Geographic mapping: The industry in the region of the complex
3. Developing a pilot project and mapping a career pathway
    a. Identify strategic partnerships
    b. Complex curriculum alignment strategy, resources and staffing
    c. After school programming and internships
    d. Facilities that ensure pathway support
    e. Community and industry support, assistance with resources and funding
4. Ensuring a job upon high school graduation, continuing on to higher education
5. A model we can template: Creating industry and career magnet complexes

Wahiawa's economic history

Pineapple industry once allowed residents to live and work in their community:

- ❏ Dole once farmed 7,000 of pineapple in Central Oahu
- ❏ Dole significantly reduces operation in Whitmore Village
- ❏ Dole downsized farming to 2,700 acres

U.S. Census (2010)

- ❏ Median household income: $50,592
- ❏ Persons below poverty level: 13.9%
- ❏ College completion rate: 16.1%

Statistics

Leilehua High Graduates:

2012: 444 graduates

2013: 400 graduates

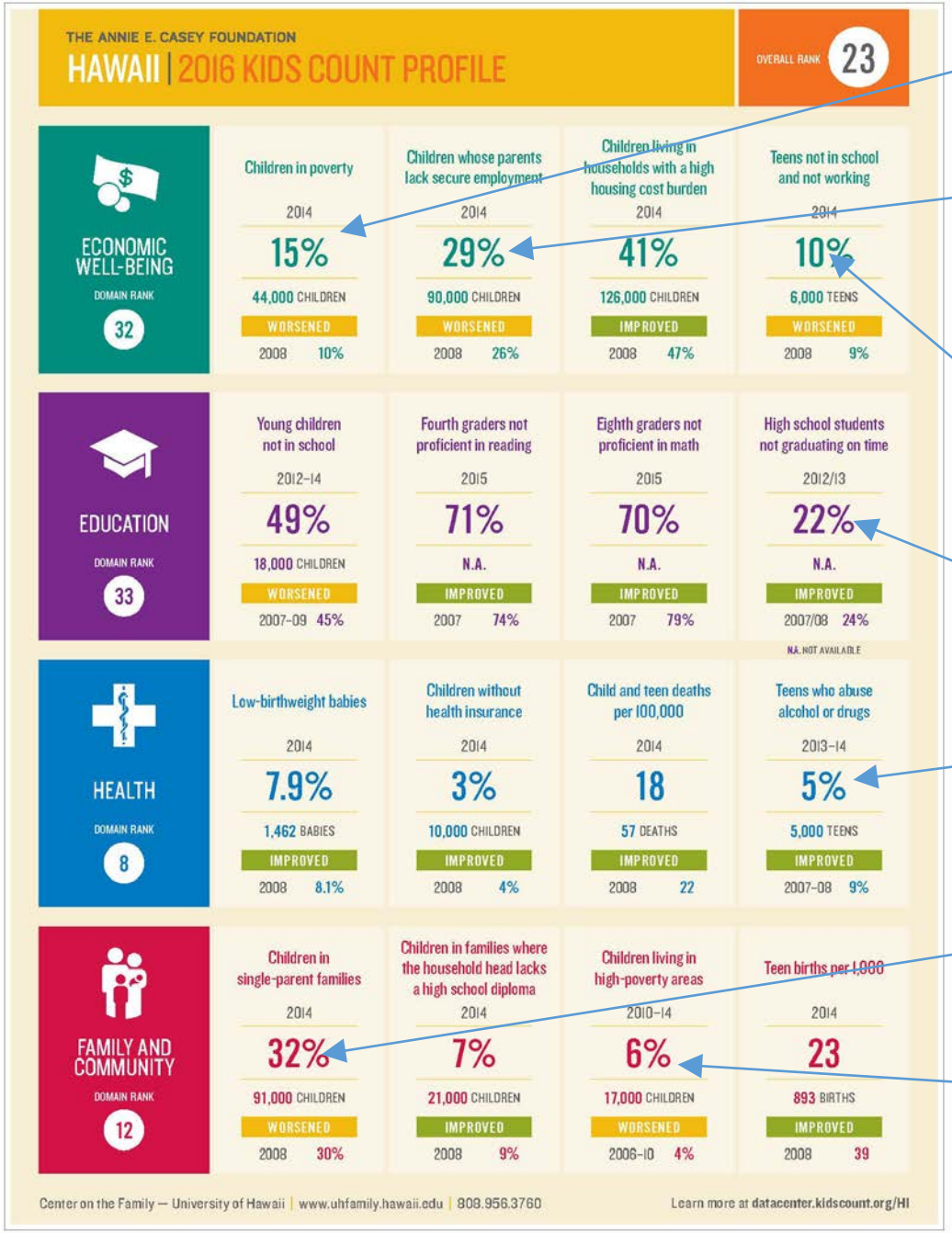
2014: 394 graduates

College Completion Rate
2-year/ 4-year:

2012: 20%/19%

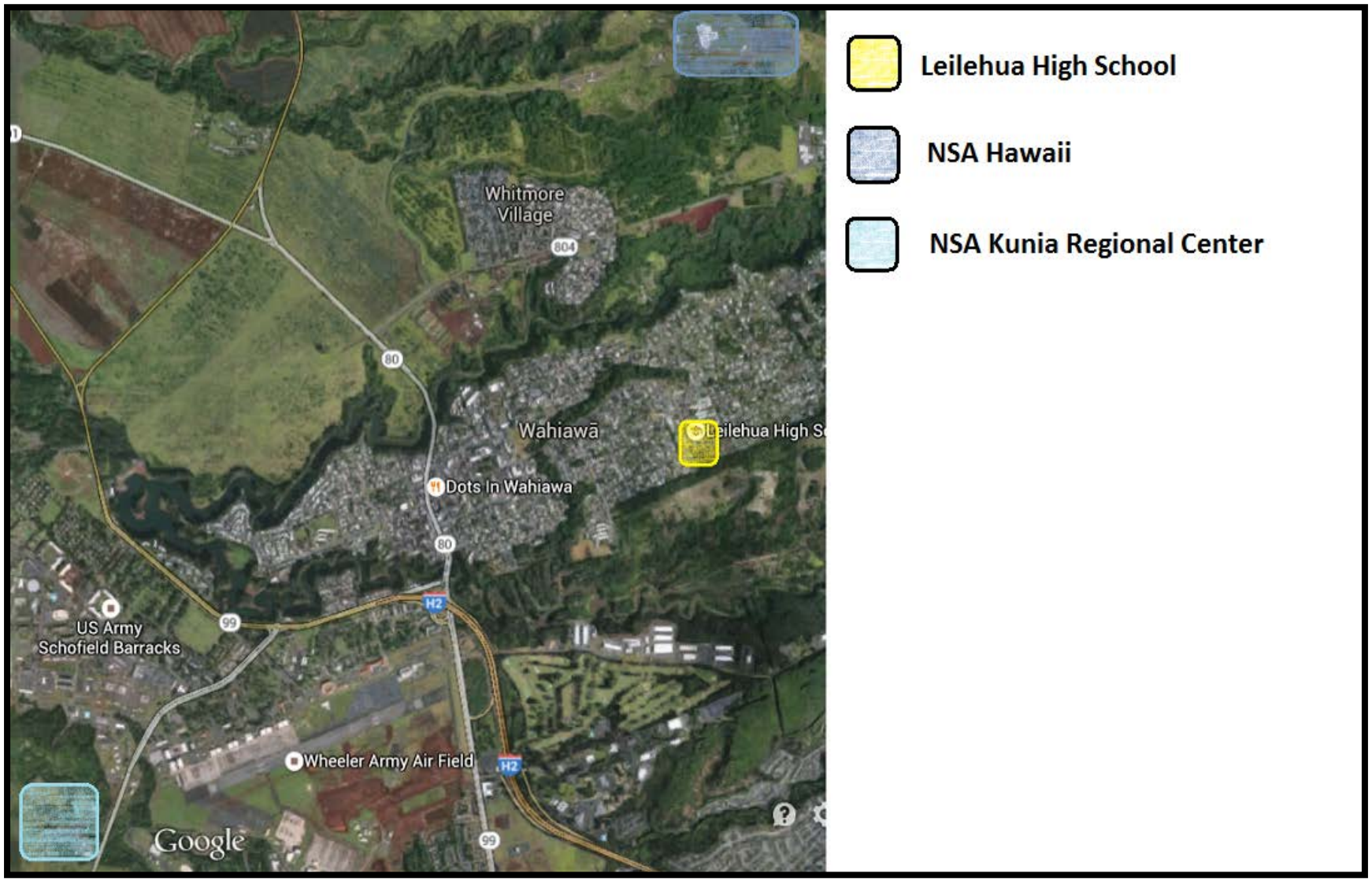
2013: 23%/22%

2014: 21%/27%

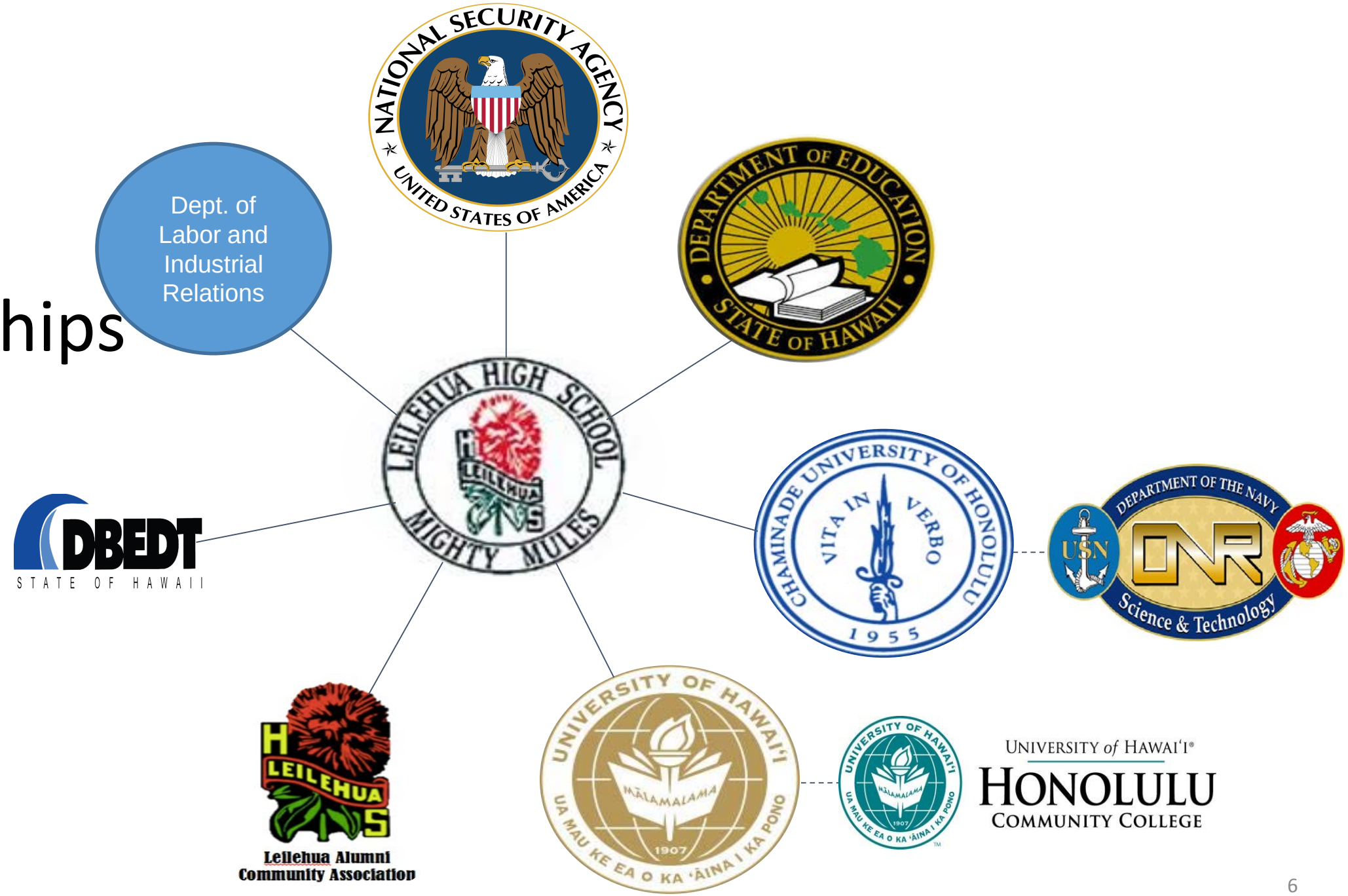


- Children in poverty: 15%
- Children whose parents lack secure employment: 29%
- Teens not in school/working: 10%
- High school graduates not graduating on time: 22%
- Teens who abuse alcohol/drugs: 5%
- Single-parent families: 32%
- Children living in high poverty areas: 6%

Geographic mapping: The industry in the region



Identify strategic partnerships



Complex Curriculum Alignment Strategy

Chaminade and ONR partnering with Leilehua Complex to develop a curriculum to meet NSA's workforce needs.

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

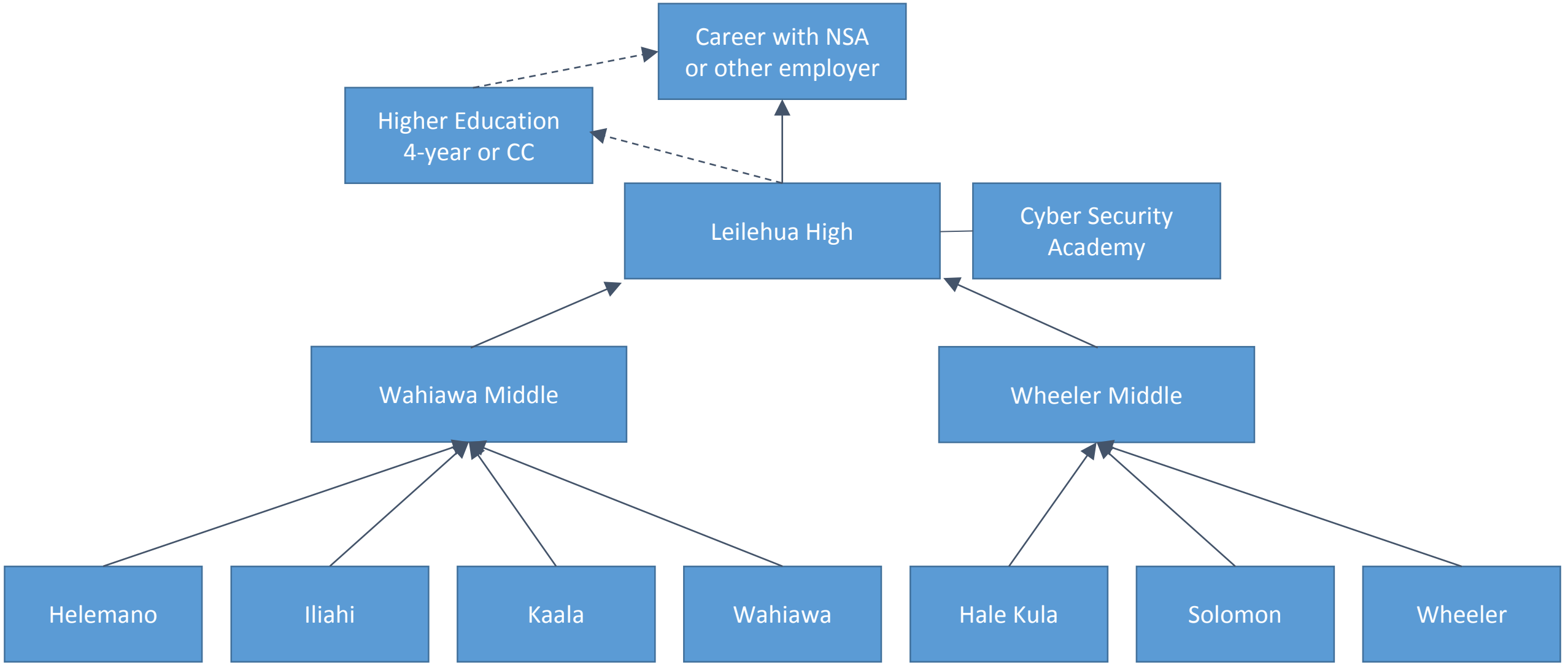
- ❑ Design process problem solving (design process)
- ❑ Project based learning tied to the community
- ❑ Self application to real world problems
- ❑ Collaboration with leadership roles

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

Curriculum must meet NSA's needs in math, science, technology, foreign language, and communications.

Cyber Security Pathway, K-12



Partnering to ensure resources/staffing

Co-teaching and internship opportunities

NSA Programs

- ❑ STARTALK Language Program
- ❑ STEM Education Partnership Program (MEPP)
- ❑ Cryptokids
- ❑ Partners in Education Program

Hawaii 3 – 6

- ❑ Dedicated funding for K-12 out-of-school programs and internships
- ❑ Cyber defense clubs, foreign language clubs

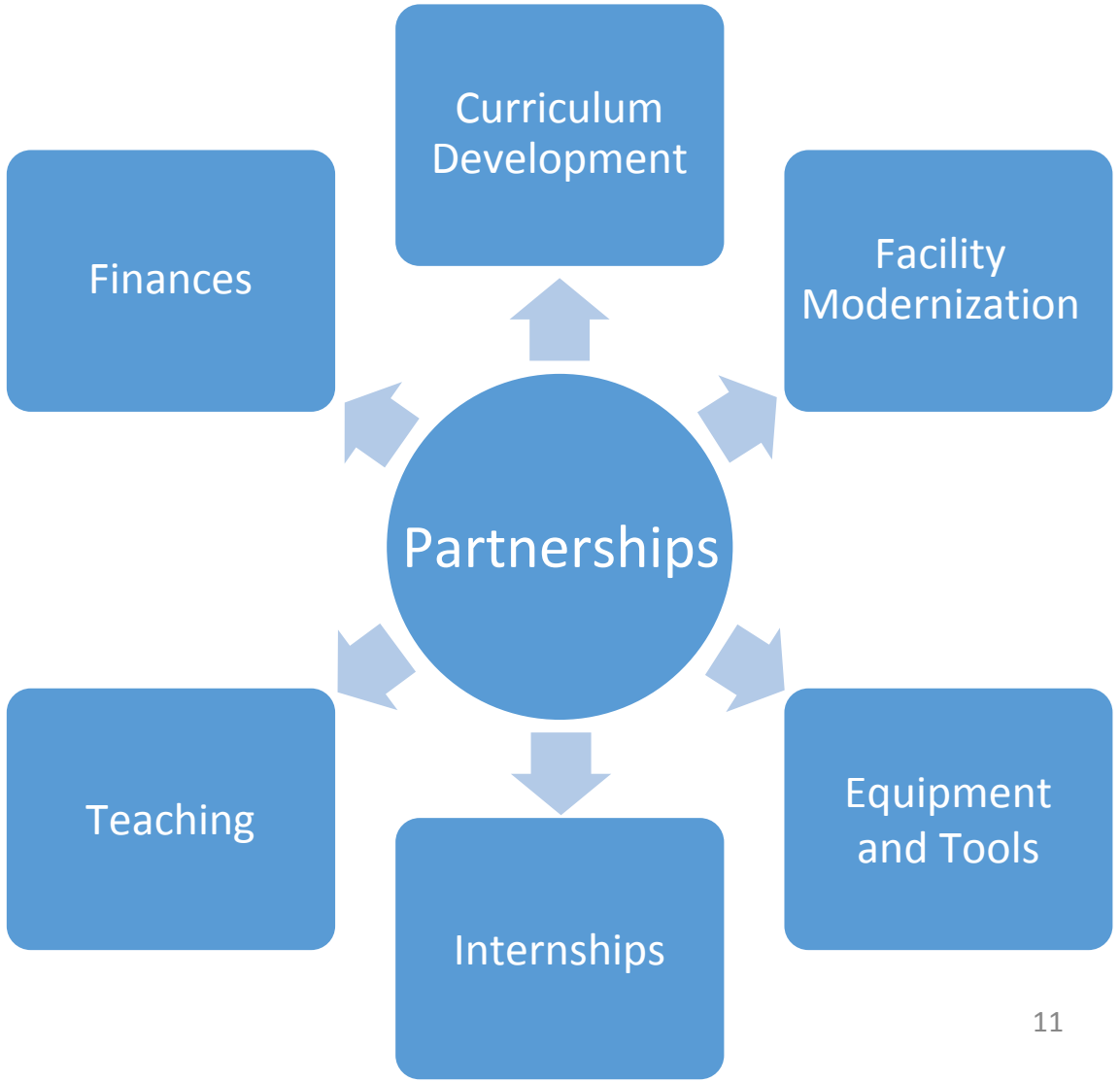
Facilities that ensure pathway support and precise alignment

1. Identify industry needs
2. Simulate existing and future workplaces
3. Masterplan schools based on the academy focus
4. Identify funding options and partnerships

Community/industry to provide resources and funding to fill the traditional gaps

Alumni & Community Association (ACA)

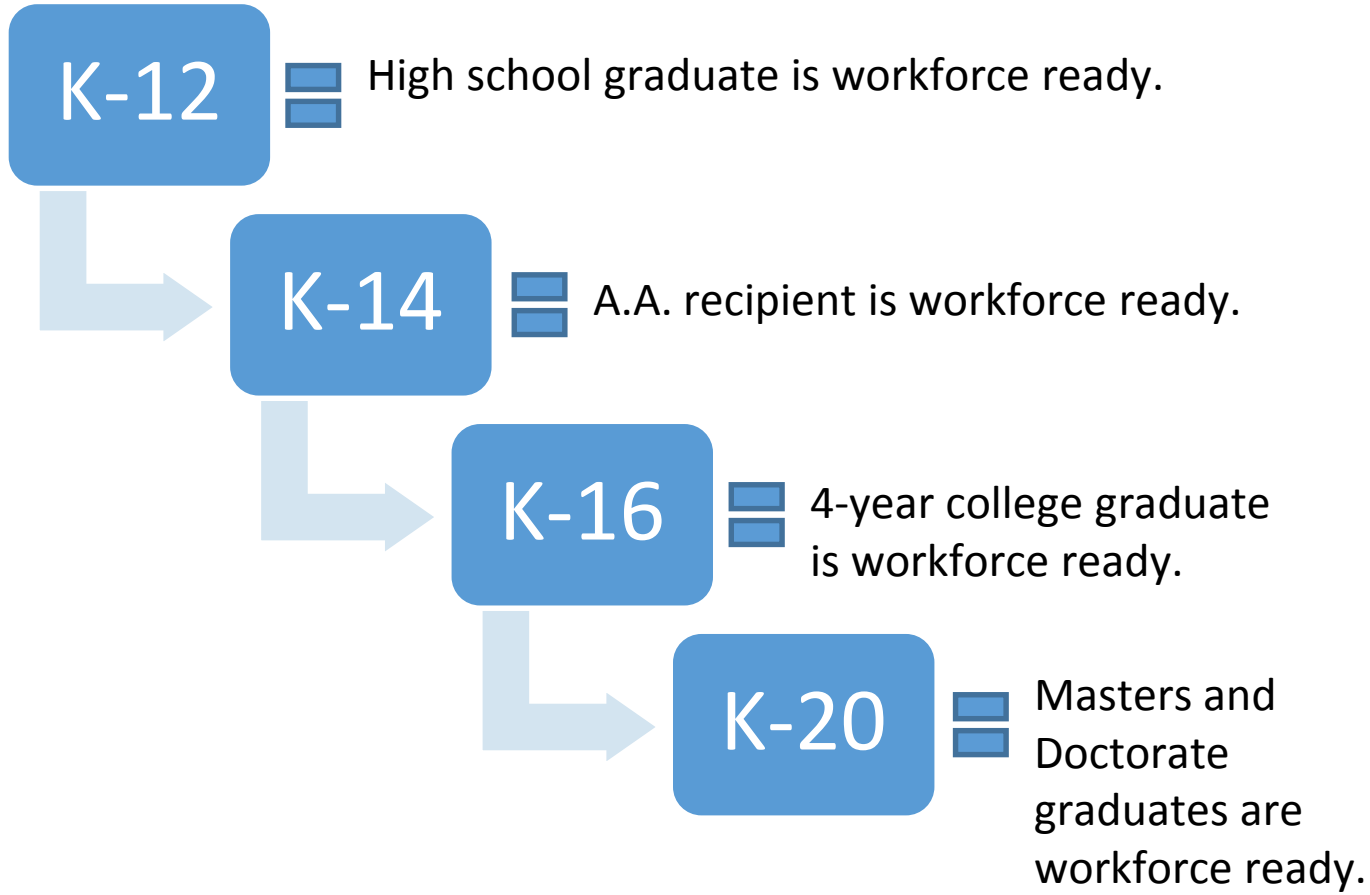
- ❑ Secure grants and fundraise for complex schools
- ❑ Facilitate partnerships
- ❑ Purchase equipment and tools
- ❑ Stipends and training for teachers
- ❑ Assist with capital campaigns for new facilities
- ❑ Assist with community outreach



Ensuring a job upon high school graduation, continuing on to higher education

Currently curriculum not aligned for NSA careers.

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



Timeline to develop pathway

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 1: 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

A model we can template:
Creating industry/career magnet complexes

Transit technology and operations

Health and medical technology

Ocean research and technology

Dept. of Labor and Industrial Relations

Mahalo!

DBEDT
STATE OF HAWAII

DEPARTMENT OF THE NAVY
ONR
Science & Technology

NATIONAL SECURITY AGENCY
UNITED STATES OF AMERICA

DEPARTMENT OF EDUCATION
STATE OF HAWAII

LEILEHUA HIGH SCHOOL
MIGHTY MULES

CHAMINADE UNIVERSITY OF HONOLULU
VITA IN VERBO
1955

UNIVERSITY OF HAWAI'I
UA MAU KE EA O KA 'ĀINA I KA PONO
1907

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Leilehua Alumni
nmunity Association