Today’s Update

1. Expansion of Sector Partnerships
2. Engineering Sector Partnership
3. Healthcare Sector Partnership
4. IT Sector Partnership
5. Ship Repair Sector
Sector Partnership Overview

**Industry-driven** public/private collaboratives that address Hawaii’s workforce development opportunities.

**Support partners** leverage their resources to help.

Third-party **convener** facilitates (grant funded).
**SP 2.0: K to Career Pathway Projects**

✔ Building a streamlined, connected talent pipeline aimed at improving student preparedness for in-demand and emerging industries

✔ Employers support HIDOE Career Academies with a sequence of work-based learning (WBL) aimed at exposing students to the world of work

<table>
<thead>
<tr>
<th>Engineering</th>
<th>IT</th>
<th>Healthcare</th>
<th>Ship Repair (Welding)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Launched February 2021</td>
<td>• Launching April 2022</td>
<td>• Active since 2017</td>
<td>• In development w/ Hawaii Defense Alliance</td>
</tr>
<tr>
<td>• 73 engineering firms</td>
<td>• IT Workforce Needs Analysis serves as launchpad</td>
<td>• Launching K-Career Pathway project in May 2022</td>
<td>• Focused on DoD contractors, welding</td>
</tr>
<tr>
<td>• Campbell, Castle, Waipahu Complex</td>
<td></td>
<td>• Farrington, Kapolei, Pearl City, Waianae Complex</td>
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</tbody>
</table>
Convening & Funding Through the Years

2017 – 2020
• Convened by UH and Chamber of Commerce Hawaii
• Funded by Strada Education Network and Harold KL Castle Foundation

2021
• Convened by Chamber + Workforce Development Council
• Funded by Workforce Development Council
• Convening support provided by SMS Research

2022 (Jan - Jun)
• DLIR returns as co-convener w/ support from SMS Research

2022/23 (Jul - June)
• Kamehameha Schools providing funding support
• DLIR funding continues (??)
• Good Jobs Challenge federal grant application submitted with UH (further expansion)
Engineering Partnership Update
Engineering Sector Partnership

**Industry:**
- AECOM
- Agor Jehn Architects
- Akinaka & Associates, Ltd.
- Architects Hawaii Ltd.
- Army Corps.
- ASCE
- ATA Hawai‘i
- Austin, Tsutsumi & Associates, Inc.
- BAYER
- Bechtel
- Belt Collins Hawai‘i
- Bills Engineering, Inc.
- Booz Allen Hamilton
- Bowers + Kubota Consulting, Inc
- Burns & McDonnell Engineering Company
- Carlolo Engineers
- Coffman Engineers, Inc.
- Community Planning & Engineering Consulting
- Structural Hawaii, Inc.
- Dept. of Environmental Services
- Dept. of Planning and Permitting
- Dept. of Transportation
- ECS Inc.
- Electech Hawaii, Inc.
- Ferraro Choi
- Fukunaga & Associates, Inc.
- G70
- Geolabs
- Gray, Hong, Nojima
- Hawaii Board of Water Supply
- Hawaii Unified
- Hawaiian Dredging Construction
- Hawaiian Electric Co.
- HDR Engineering, Inc.
- Healy Tibbits Builders Inc.
- Hi.arch.y LLP
- InSynergy Engineering, Inc.
- Jacobs Engineering
- JCK Underground
- KAI Hawaii
- KCS Consulting, LLC
- Kennedy Jenks
- Layton Construction Co
- Limitiaço Consulting Group
- Lowney Architecture
- Makaha Learning Center
- Martin Defense Group
- Mason Architects, Inc.
- Michael Young
- Miyashiro & Associates, Inc
- MK Engineers, Ltd.
- MKE Associates, LLC
- Nagamine Okawa Engineers, Inc.
- Nakamura, Oyama & Associates
- NAVFAC
- Nordic PCL
- Notkin Hawaii, Inc.
- Obayashi Design Group Inc
- Oceanit
- Okahara & Associates, Inc
- Orion Engineers
- OTIS
- Pacific American Foundation
- Pacific Geotechnical Engineers, Inc.
- Park Engineering
- QRSE, LLC
- R.M. Towill Corp.
- RIM Architects, LLC
- Ronald N.S. Ho & Associates, Inc
- Sam O. Hirota, Inc.
- Sato & Associates
- Shigemura, Lau, Sakanaishi, Higuchi & Associates
- SPAWAR Systems Center Pacific
- SSFM International
- Structural Hawaii, Inc.
- Tanimura & Associates, Inc. (i3engineering)
- Thermal Engineering Corp.
- Wilson Okamoto Corp.
- WSP Parsons Brinkerhoff
- Yogi Kwong Engineers

**Secondary Education:**
- Campbell Complex
- Castle Complex
- Waipahu Complex
- Hawai‘i State CTE
- Kamehameha Schools

**Post-Secondary Education:**
- Song Choi, UH College of Engineering
  Dr. Brennon Morikoa, Dean, UH College of Engineering
  Leeward Community College

**Community Partners**
- Harold KL Castle Foundation
- Hawai‘i P-20
- Kauai Economic Development Board
- Maui Economic Development Board
- Workforce Development Council

**Conveners:**
- Keala Peters, Chamber of Commerce Hawai‘i
- Katie Kaahanui, Chamber of Commerce Hawai‘i
- Lord Ryan Lizardo, Chamber of Commerce Hawai‘i
- Faith Rex, SMS Research
- Anna Pacheco, SMS Research
ENGINEERING SP FOCUS:
Build a K to Career Engineering Pathway

Engineering Talent Pipeline

Elementary
Middle School
High School
College
Career

Pilot School Complexes: Campbell, Castle & Waipahu
Engineering: 4 Shared Priorities

Our discovery phase has yielded these shared priorities among our three school complexes (Waipahu, Campbell, Castle):

1. Career Awareness and Interest
   Exposure to various career paths within the STEM/Engineering industries, with awareness opportunities for students and parents beginning at the elementary-school level.

2. Increasing STEM Interest among Female Students
   Developing a sequence of opportunities for girls to gain exposure to STEM and engineering careers. Native Hawaiian students will also be a focus for this workgroup.

3. Ensuring students are Math-Ready
   Exposing students to the math requirements needed to stay on track while in the K-12 pipeline, to be able to meet university engineering requirements and expectations.

4. Recruiting Advisory Board Members
   Convening industry and education partners to serve on an advisory board tasked with streamlining and strengthening WBL efforts within the school complex.

Internships, Project-Based Learning (PBL) and Educator PD will be foundational elements across the first three priorities.
Outcomes and Objectives

1. Improved technical and professional *skillset* among local engineering students.

2. Increased **supply** of local engineers in Hawaii.

3. Enhanced engineering program *infrastructure* in pilot school complexes.

4. Increased student **engagement** in engineering career options.

5. Increased **alignment** between secondary and post-secondary programs and careers.
## Engineering Dashboard

### Program Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of engineering pathway graduates</td>
<td>113</td>
</tr>
<tr>
<td>Percent of Engineering Pathway Students that are Female</td>
<td>8%</td>
</tr>
<tr>
<td>Total number of calculus completers</td>
<td>110</td>
</tr>
<tr>
<td>Total number of graduating seniors enrolling at UHCOE</td>
<td>30</td>
</tr>
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</table>

### Work Based Learning Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Businesses onboard into ClimbHi</td>
<td>68</td>
</tr>
<tr>
<td>Educators onboard into ClimbHi</td>
<td>598</td>
</tr>
<tr>
<td>WBL opportunities available</td>
<td>153</td>
</tr>
<tr>
<td>WBL Experiences to date</td>
<td>4</td>
</tr>
<tr>
<td>Students Impacted</td>
<td>315</td>
</tr>
</tbody>
</table>
2021-22 School Year Highlights

• Engineers Week
  - Engineering Field Day
  - Virtual Parent Night
  - UH Job Fair
  - Mock Job Interviews
• Female Engineers Speakers Bureau
• ClimbHI Bridge
• Engineering Expedition Downtown Field Trip
• STEMworks Summer Engineering Internships
• Math Curriculum Mapping
• Career Awareness Presentation and Resource Sheets
• Engineering Educator Resource Bank
ENGINEERS WEEK 2022
Impact Report

The Chamber of Commerce Hawaii’s Engineering Sector Partnership introduced Engineers Week from February 22 to 25 to Hawaii students in grades K–12. Engineers Week offered multiple events that exposed students to STEM activities and helped build Hawaii’s future engineering talent pipeline. Events included an Engineering Field Day, a UH College of Engineering Virtual Career and Job Fair, Virtual Parent/Guardian Night, Introduced a Girl to Engineering event and Mock Job Interviews.

"I WANT TO BE AN ENGINEER WHEN I GROW UP!"
- WAIPAHU ELEMENTARY STUDENT

518
STUDENTS REACHED

24
EMPLOYERS PARTICIPATED

33
ENGINEERS VOLUNTEERED

"ALL ENGINEERING AND HANDS ON CLASSES SHOULD STRIVE TO BE LIKE THE ENGINEERING FIELD DAY. THIS WAS A FUN AND CHALLENGING ACTIVITY THAT ALLOWED STUDENTS TO TRULY GET CREATIVE AND PRACTICE USING REAL WORLD SKILLS."
- JAMES CAMPBELL HIGH SCHOOL STUDENT
Healthcare Partnership Update
What we’ve accomplished so far:

- **Healthcare Sector Partnership Begins**
  - 2017

- **Industry sets priorities: Workforce Development And Systems Integration**
  - 2017

- **Impact: Decrease in ED Utilization; HAH HWI Report; Patient Transitions**
  - 2020

- **Workforce collaboration begins with the Healthcare Education & Training Alliance**
  - 2020

- **CV-19 alters HC landscape**
  - 2021

- **New Action Agenda set**
  - 2021
The convening team surveyed the full Healthcare Sector Partnership to clarify 2021 priorities that emerged in the Dec 2020 meeting. A clear majority of respondents felt the partnership should focus on supporting workforce development efforts.
Developing a Healthcare K to Career Pathway Project

This project will be a collaborative effort between education and industry partners to build Hawaii’s future healthcare workforce through sequences of connected experiences that support career awareness, exploration, preparation and training over time.

Vision

Through industry and education collaboration, build a connected cradle-to-career healthcare talent pipeline that allows us to attract, develop, and retain Hawaii’s healthcare workforce of tomorrow.

Guiding Principle

Work-Based Learning (WBL) will be a foundational element. We will seek to build a sequence of activities that follow the P-20 WBL Continuum, build technical and employability skills as students progress, provide on the job training, and connect students with future employers.
Developing a Healthcare K to Career Pathway Model

Working in partnership with leaders in our healthcare community, our task is to develop a cohesive model that aligns and expands statewide efforts in healthcare workforce development to include impactful career exposure, technical career preparation, and support through to employment and career advancement.

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**Kindergarten**
- Career Awareness
- Parent Nights
- Guest Speakers

**Elementary**
- Career Exposure and Training
- Connecting Schools with Regional Employers
- Entry Level Certifications
- Earn & Learn/Internships
- Teacher PD

**Middle School**

**High School**
- Clinical Education
- Apprenticeships (Earn & Learn)
- Transitions to Employment

**Career**
- Work, Train, Advance
- Glidepaths

**Advancement**

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**Sector Partnerships Industry Support and Engagement**

- HOSA
- AHEC
- HSCN
- HAH
Healthcare Pathway Project

Step 2: Painting A Future Picture (Desired End State):
Supply meets Demand; Glidepath: Optimize Advancement Pathways to Attract and Retain

- Elementary
  - Awareness/Exposure through one-time experiences (1-6 hr)
    - e.g., Workplace visits, classroom, speaker, videos, fieldtrips, etc.
  - Exploration:
    - e.g., HOSA, job shadowing, career counseling
      (2 to 6 hours over 2 or more days)

- Middle school
  - Preparation/Training:
    - e.g., internships, learning projects (4w-1yr)
      - College credit
      - Certification programs, clinical apprenticeship/practicum

- High school
  - Associate/Certification
    - Career counseling/navigation
    - Stacked credits/credentials
    - Flexible scheduling for working adults, distance learning
    - Credit for on-the-job learning/experience

- Bachelors
  - Career counseling/navigation
  - Stacked credits/credentials
  - Flexible scheduling for working adults, distance learning
  - Credit for on-the-job learning/experience

Employment (supply meets demand)
- Employer benefits support professional development
  - Scheduling (part-time) or other schedules
  - e.g., education, reimbursement, career advancement opportunities,
    (career development support, e.g., counseling, education and pathways)

Healthcare Pathway Project
Complex Selection Criteria

1. **Career Academy School** with demonstrated infrastructure and teacher/administrator buy-in.

2. **Number of Healthcare Programs of Study (POS)** or 4-year sequence offered.

3. High percentage of high school **students enrolled** in CTE Health POS.

4. **Established HOSA** high school chapter (bonus points for middle school chapter)

5. **Other supports** (WBL intermediary, industry partners, post-secondary education partners, etc.).

**New Partners:** Farrington, Kapolei, Pearl City, Waianae
Healthcare Pathway Project

Emerging Shared Priorities

**Career Awareness/WBL**
Increased opportunities for students to learn about career opportunities in healthcare. (Workplace visits, classroom speakers, job fairs, career counseling, etc.)

**Earn & Learn/OJT**
Expanding opportunities for students to gain work experience and training. (Internships, certifications, college credit, and clinical education slots, etc)

**Curriculum Support**
Increasing industry guidance and training opportunities for teachers across all healthcare pathways of study to support educators and allow for expanded course offerings.

Emerging Shared Priorities
Based on initial planning, we consider the above to be included in the key initiatives to be taken on by the pathway project.
IT Sector
Hawaii IT Workforce Needs Report - Nov ‘21

**IT Sector in 2020**

- **12,740** Jobs
- **894** Ave. Annual openings
- **30%** Churn within the Industry
- **157%** Ave. hourly wage vs ALICE Individual
- **3,834** New Hires
- **$2+ Billion** Industry contribution to Hawai‘i GDP

**By 2030**

- **13%** National forecast
- **7%** Hawai‘i forecast
IT Workforce Analysis
Recommendations

1. **Align educators and employers** – improve partnership between IT employers and educational institutions to better match skills students gain with needs of employers – for both today and the future.

2. **Increase career awareness** – involve industry partners in career awareness work-based learning so students and parents understand at an early age the opportunities and skills/credentials needed by occupation.

3. **Increase training opportunities** – engage industry to provide on-the-job training such as internships and apprenticeships. OJT enhances professional skills and helps students apply technical skills to the real world.

4. **Review minimum qualifications for entry-level jobs** – review employers’ screening criteria for entry-level positions. Give credit for skills gained through credential attainment, OJT and work experience.

5. **Improve data collection** – data collection enables better program evaluation.
# ITSP Governance

**Conveners:** This team is the administrative and fiscal engine that supports the Partnership.

- Chamber of Commerce
- DLIR (SMS Research)
- University of Hawaii
- Kamehameha Schools

**Project Team:** This core group leads planning and strategy setting for the Partnership (meets monthly).

- Chamber of Commerce: Keala Peters
- SMS Research: Anna Pacheco
- University of Hawaii: Tammi Chun, Alan Ito, Keala Chock
- Hawaii P20: Warren Kawano
- HTDC/TRUE: Leilani Farinas
- HKLCF: Alex Harris
- Paxca: Jean Schneider
- KS: Nalani Kealaiki

**Steering Committee:** This group of public facing champions helps guide agenda setting and leads priority workgroups for the Partnership (meets quarterly).

- IT Employers: Kelly Ueoka, Eddie Ontai, Elden Ito, Deena Tearney, Karen Yamamoto
- Healthcare Employer: Steve Robertson
- Banking Employer: Ryan Field
- Defense Employer: Ed Barnabas
- STEMworks: Leslie Wilkins
- HTDC: Len Higashi
- HDA: Jen Sabas
- CIO Council: Greg Hester
- CyberHI: Jodi Ito
- UH: Garret Yoshimi
Developing an IT Career Pathway

**Vision:** for every IT job in Hawaii there is a qualified local candidate.

- **Kindergarten**
  - Career Awareness and Preparation

- **Elementary**
  - Training and Transitions to Employment

- **Middle School**
  - Training and Transitions to Employment

- **High School**
  - Training and Transitions to Employment

- **Post-Secondary**
  - Alignment between Education and Industry

- **Career**
  - Shared Priorities

**Shared Priorities**

- Awareness
- Exploration
- Preparation
- Training
- Advancement
Emerging and in progress key initiatives for each of the priority workgroups include:

**Career Awareness and Preparation**
- Work-based learning
- IT for Everyone
- ClimbHI Bridge
- CIO Brochure
- Employability Skills
- K to 12 Internships
- TBD by Workgroup

**Training and Transitions to Employment**
- Career Fairs
- Internships
- Training Programs
- IT Job Boards (Employment/Internships)
- Networking Events
- Increase Student Equity and Access
- TBD by Workgroup

**Alignment between Education and Industry**
- Career Pathway Mapping
- Curriculum Mapping
- TBD by Workgroup
## IT Sector Partnership Rollout

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid-March</td>
<td>Full Partnership Survey and Meeting Invite</td>
</tr>
<tr>
<td></td>
<td>Email full partnership list with priority initiatives survey and invitation to</td>
</tr>
<tr>
<td></td>
<td>full partnership meeting in April.</td>
</tr>
<tr>
<td>Mid-March</td>
<td>Full Partnership Meeting</td>
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<tr>
<td></td>
<td>First Full Sector Partnership Meeting to review Partnership framework and set</td>
</tr>
<tr>
<td></td>
<td>action agenda.</td>
</tr>
<tr>
<td>April 26</td>
<td>Establish Action Agenda for Priority Initiatives</td>
</tr>
<tr>
<td></td>
<td>Finalize action agenda for priority initiatives with workgroup leads.</td>
</tr>
<tr>
<td>Late April</td>
<td>Priority Workgroup Meetings and Initiative Work</td>
</tr>
<tr>
<td></td>
<td>Workgroups will advance priority initiatives and hold meetings as needed.</td>
</tr>
<tr>
<td>May/June/July</td>
<td>Full Partnership Meeting</td>
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<tr>
<td></td>
<td>Full Sector Partnership will reconvene to share initiative progress and results.</td>
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</tbody>
</table>

### Steering Committee Invitations

- Personal invitations to potential steering committee members.
Ship Repair Sector
HI Defense Alliance: Ship Repair Workforce

- Defense spending = $7b; 102,000 jobs
- HI Defense Alliance (DBEDT) focusing on workforce
- Sector Partnerships supporting

PHNSY Visit for Campbell HS April 12
Mahalo for your partnership!