Comprehensive Needs Assessment to Inform the State of Hawaii's Application for Perkins V Funding

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Executive Summary

As per the Perkins V requirements, this needs assessment is intended to inform the four-year application for funding. The report includes a) a description of the background for the needs assessment, including the context and the analytic methods used to write the report, b) a description of the present situation, including what is working well and what the needs are with regard to the five categories of data prescribed by the law and described by AdvanceCTE (2019), and c) a statement on the suggested needs for the next iteration of the Perkins V needs assessment.

Background

Data were collected from multiple documents comprising meeting notes, minutes, reports, and slides; multiple websites; and 13 semi-structured focus groups (averaging 60 minutes in length) and a survey, with a total of 130 participants. The focus groups included teachers and staff from the Hawaii DOE system, deans from the UHCC system, middle- and high-school students, and representatives from non-profit organizations serving as intermediaries or developers of curricula. The transcriptions and documents were coded into themes and reported into the five categories of information required for the Perkins V needs assessment. The reported findings are listed in the following bullet points, per these five categories:

1. Student Performance Indicators

What's working well with performance indicators?

❖ **The eligible recipients regularly collect data across their organizations and have systems and processes for using this data to produce *Consolidated Annual Reports*—as well as for other data sharing and use.**

❖ **These data have largely been disaggregated by special populations, as identified under Perkins IV.**

What are the needs in regard to performance indicators?

❖ **Data need to be collected and systems developed or adapted to allow for disaggregation and monitoring of special populations of students, as identified under Perkins V.**

❖ **Supports are needed to make existing (and any new) data more accessible, meaningful, and actionable for decision-makers and stakeholders throughout the system—including targeted data visualizations, dashboards, education, and training.**

2. Size, Scope, Quality, and Alignment

What's working well with size?

❖ At both the secondary and postsecondary level, enrollment is being used to make decisions about program size.

❖ At the postsecondary level, the ARPD system provides accessible data about each program's enrollment, which can inform program size decisions. The ARPD system also provides, for each program report, information about and links to industry data in the Hawaiʻi Industry Sectors site.

- At the postsecondary level, staff recognize the value of industry needs in determining program size while also being cautious about unintended effects of relying only on industry needs.

What are the needs in regard to size?

- **At the secondary level, supports for integrating labor market information into decision-making are needed.** At the secondary level, schools and educators are not currently using labor market information in their decision-making. Examples of how they—or students and parents—might use such information to make decisions about the classes and programs could help to make labor market data relevant and useful for their work. At present, it seems unclear to teachers, coordinators, and school administrators why or how they would such information. At the postsecondary level, size and labor market information are available through the ARPD system.

- **There are serious constraints limiting schools' capacity to respond to needs regarding program size.**
  - **Teacher availability is consistently a limiting factor.** Student interest and industry needs may be very high in a particular program, but without a teacher of the skills and knowledge, such a program is not likely viable. Greater investment in teacher recruitment and retention is needed. Alternatively, students need a way to participate in programs offered at other school sites; however, this assumes students are a) equally capable of traveling to those sites, and b) committed to a program rather than simply exploring it among the other choices that may be available at their home school.
  - **Facilities need to be updated.** Some schools cannot increase the size of key programs because they require equipment that the school infrastructure cannot handle.

What's working well with scope?

- **There are successful dual-credit partnerships between some DOE schools and UH campuses that permit high school students to earn college credit while also meeting high school graduation requirements.**

- **At the secondary level, work-based learning opportunities and curricula in some industries—such as technology-focused industries—are supported by organizations like PCATT and other education-industry intermediaries.**

- **Some secondary level programs have detailed content standards.**

- **Some secondary schools have well established work-based learning partnerships.**

- **The ARPD system of the post-secondary programs provides descriptions of programs' curricula, including action plans for ways to address concerns with curricula.**

What are the needs in regard to scope?

- **Some high schools and districts are in need of support to develop dual-credit and articulation agreements with colleges.**

- **There is a need for greater consistency in the content standards across programs.**
  - At the secondary level, there is a need for consistency in linking the class content to industry standards.
  - There is a need for greater consistency among course titles and content across programs, at both the secondary and post-secondary levels, though efforts appear to be underway at the post-secondary level.

- **Greater emphasis is needed to support all students in developing the types of professional skills required for participation in work-based learning opportunities and for succeeding in work settings.**

  - This appears to be the case at both the secondary and post-secondary level.

- **Structures are needed for coordinating and supporting the work of CTE teachers and counselors at the secondary level**; e.g.,
  - There is some need for education-industry intermediaries in programs in which they are presently absent, particularly those in high-skill, high-wage, and in-demand sectors.
  - There is a need for secondary level staff professional development in how to understand and implement the standards.
  - Consideration might be given to the creation of a central structure—possibly a hub or database—that teachers and counselors can consult to provide students with peer examples or with specific work-based learning opportunities.

What's working well with alignment?

- **Pathway articulation and agreements from high-school to postsecondary and industry are well established in some programs in some locations.**

- **Colleges are actively seeking ways to improve their use of workforce data, through advisory boards and services such as Emsi.**

- **Intermediary organizations** (e.g. Elemental Excelerator and Ka'ana Solutions) **and structures** (e.g. PCATT) **are working to establish partnerships that improve alignment between secondary schooling and industry.**

What are the needs in regard to alignment?

- **At the secondary level, there is a need for some kind of structure or assistance to help teachers and staff identify pertinent alignment data and use these data to inform decisions about curricula and programs.**

  - Many teachers and staff need help in identifying, managing, and using alignment data that are relevant to their students and programs.

- **Some high schools need support in establishing partnerships with industry.**

  - The present system is based on relationships, which can be susceptible to staffing changes.

- There is a desire among some staff and teachers for locally positioned personnel to provide assistance or structure to high schools to establish and effectively use pathway advisory boards.

- There is variation among schools in their success in forming and maintaining partnerships. Some schools and programs have healthy partnerships in place; others do not. Some have intermediary structures or organizations to establish and maintain partnerships while others do not. Are all schools to be given the same access, or are schools to be left to fend for themselves? Alternatively, is there a need for some type of systematic approach to providing partnership support—some type of formula for drawing more resources to some education-industry partnerships over others? Systematic decisions need to be made about how to support industry partnerships.

- **At the secondary level, curricula and standards that align with industry are needed.**

  - There is a need for some programs' content standards to be more fully developed to address workforce needs and standards.

  - Across the pathways, professional "soft" skills can play a more prominent role in the standards. Teachers seek guidance in ways to teach and assess the growth of these skills.

- **At the post-secondary level, there may be a need for clearer descriptions** (such as from Emsi) **about the credentials required for specific occupations within a program of study.**

- **At the post-secondary level, discussion about the inclusion of professional "soft" skills in curricula is needed.**

3. Recruitment, Retention, and Training of CTE Professionals

What's working well with recruitment, retention, and training?

- **The present system supports moving experienced core teachers into CTE teaching positions.**

  - Whereas the teachers can face challenges and costs in improving their knowledge and skills in the pathway they teach in, they bring with them an understanding of how to teach academic skills, which can strengthen the integration of academic and CTE content in a course.

- **Professionals with industry experience have a means to become DOE teachers via Leeward Community College's Alternative Certification for CTE Licensure Program.**

  - This is particularly valuable for professionals who already have a bachelor's degree but who need to acquire teaching skills and credentials.

What are the needs in regard to recruitment, retention, and training?

- **Stronger incentives for prospective and in-service CTE teachers are needed.**

- At the secondary level, schools face shortages of teachers for programs that are deemed to be important, which can result in programs being taught by teachers with under-developed pathway-specific knowledge and skills or in the loss of CTE programs.
- The credentials that are required for a teacher to be hired, or for advances in pay, place limitations on institutions' capacity to hire and keep faculty who have industry experience and expertise.
  - At the secondary level, the present system requires teachers have a bachelor's degree to advance in pay beyond Class II. If this requirement persists, there need to be expanded opportunities for people with industry experience to acquire a bachelor's degree; alternatively, policy makers can address whether X amount of years of industry experience or other industry achievements can be made equivalent to a bachelor's degree.
    - At the present time, there are few opportunities—none locally—for teachers to acquire a bachelor's degree in CTE. The logical route seems to be to earn a bachelor's in their professional field and then go through Leeward's licensure program.
    - CTE programs in industry areas that do not require a bachelor's degree, such as those in industrial arts, are particularly susceptible to teacher shortages and poor retention due to this requirement. For example, a highly skilled auto-mechanics professional who never earned a bachelor's degree may seek to become a high-school teacher; s/he can earn a certificate from Leeward's program to get into the classroom but without a bachelor's will never have the opportunity to advance in pay beyond Class II.
  - At the post-secondary level, the minimum requirements established by human resources are perceived by some deans as not being pertinent for the faculty position being advertised for, making some high-skilled industry experts ineligible for positions.
- Prospective CTE teachers from industry are undervalued.
  - At the secondary level, there is a perception that administrators believe that anyone can become a CTE teacher—that it merely requires a warm body and that emergency hires with limited skills and knowledge can readily take the place of retired CTE teachers.
  - There is also the expectation for teachers to pay their own credentialing fees, whereas the perceived common practice in industry is that the company covers such costs.
  - Prospective secondary and post-secondary faculty typically face lower salaries than they would receive if they operated in their field.

- **In secondary, there is a desire for non-teaching staff who can coordinate with industry and, at the administrative level, attend to the curriculum and administrative needs of the pathways.**
  - As was addressed with "Scope" and "Alignment", there is a need for intermediary staff or structures that are available systematically across programs and schools.

- **Greater consistency is needed in determining which professional development opportunities are provided and where.**
  - The DOE and geographic districts may need to examine which types of PDs are offered at their respective levels. The DOE may wish to conduct a narrower needs assessment to specifically inform what types of PDs are wanted and needed.
    - In locally organized PD, such as at the geographic district level, it may be more cost effective to offer PD in general pedagogic skills. PD in skills and knowledge that are pathway specific may be more appropriate at the larger scale, such as at the state or county levels.
    - At the state level, pathway-specific PD is unevenly provided across pathways. For instance, there are ample teacher PDs in health but few in business. Decisions need to be more systematic in determining which PDs are offered. If this unevenness is indeed intended (for the purpose of developing pathways that hold greater promise for students' future success), this needs to be communicated to schools.
    - There is a need for CTE standards training, particularly for non-CTE faculty transitioning to CTE teaching positions.
    - A closer examination is needed to identify obstacles that are preventing teachers who need PDs from attending them.

4. Progress Toward Implementing Programs and Programs of Study

What's working well with progress toward implementing programs and programs of study?

- **The student performance data are available for reviewing the progress of programs based on criteria such as graduation rates and special population participation rates.**
- **At the post-secondary level, the ARPD system documents each program's health, along with quantitative data about licensure and graduation, evidence from employers, action plans, and other information that is valuable for examining the progress of the implementation of programs.**

What are the needs in regard to progress toward implementing programs and programs of study?

- **At the secondary level, there is a need for program goals to be specified so that progress of programs and programs of study can be evaluated.**
  - A revision of the criteria for quality is likely needed.
  - A system is needed for reporting the relevant data, such as the ARPD or NAPE dashboards, and for examples on how such data can be used to improve programs or to justify how well programs are functioning.

- ❖ **At the post-secondary level, there can be greater consistency between the definitions of quality (in the state's description of the criteria for size, scope, and quality) and the criteria that are used in the ARPD system.**
  - ➢ The present definition of quality in the size, scope, and quality document address processes rather than criteria.

5. Progress Toward Access and Equity

What's working well with progress toward access and equity?

- ❖ **The eligible recipients have been meeting (or being very close to meeting) the criteria for performance indicators having to do with special populations.**
- ❖ **There are efforts by education-industry intermediaries to provide equity and access in selected programs.**

What are the needs with regard to progress toward access and equity?

- ❖ **There is a need for improved communication with families about the career and industry pathway possibilities.**
  - ➢ An awareness of these possibilities at an early age can improve access into competitive post-secondary programs and higher-wage occupations and industry pathways.
  - ➢ The messages need to be clear to families and students that one of the intended functions of Perkins V funded CTE programs is to improve equity across special populations.
- ❖ There is a need for capacity building among CTE teachers and staff in how to address equity in classrooms.
  - ➢ Secondary level CTE teachers seek guidance in how to bring equity to each special population while still teaching a rigorous curriculum. Professional development or examples from similar schools may serve to address this.
  - ➢ Supports that core-subject teachers have, such as in special education, seem to be limited for CTE teachers.
- ❖ **There is a need for school and program level guidance in how to address access and equity.**
  - ➢ There is a need for general education teachers, special education teachers, CTE teachers, and counselors to work together to support the career pathways of all students at the secondary level. Some school staff, such as non-CTE teachers, appear to be unaware of the intended scope of CTE programs, which includes enabling students to enter and exit a career at multiple points. Students may encounter mixed messages from non-CTE staff if this understanding is not shared.

- ➢ Training in how to use the data about special population participation is needed. Although the data can be communicated to teachers and staff, such as through the NAPE dashboards, guidance in what actions to take may prove to be valuable.

- ➢ Examples of ways that counterpart programs and schools have addressed equity are needed so that schools have some ideas about how to improve equity and access.

❖ **Exposure of students of special populations to industry and mentorship can improve equity.**

- ➢ There is a need for increased support mechanisms that expose students in special populations to like individuals so that they are represented.

❖ **Definitions for high-wage, high-skill, and in-demand occupations are needed so that success in equity can be evaluated.**

- ➢ Criteria for programs' success in achieving equity can serve efforts to document progress toward equity.

Recommendations for the Next Perkins V Needs Assessment

With Perkins V comes the requirement to conduct a comprehensive local needs assessment and update it at least every two years. The present needs assessment was a first attempt to examine Perkins V implementation at the system level.

The biggest weakness of this endeavor was in the "local" part of this needs assessment. Local sites have a much stronger capacity to examine their programs and provide evidence that documents their progress in implementation and in addressing access and equity. The next needs assessment will require a broader effort, with the inclusion of local participation and reporting.

The next weakness has to do with the nature of the data. The types of data required for conducting a needs assessment of the multitude of programs across the five categories of information extend beyond documents, web sites, and focus groups. The next needs assessors should seek examples and perhaps guidance from other states' Perkins V needs assessments to identify better ways to collect data that address the Perkins V needs assessment requirements while still maintaining a high standard of data quality.

A further recommendation is for the needs assessment to be conducted by a larger body of researchers, with teams allocated to collecting data from stakeholder groups. In addition to those included the present needs assessment, stakeholders that should be included in the next round include the following:

- parents and students who represent a range of socio-economic backgrounds,
- representatives of the local workforce,

- representatives of special populations, and
- post-secondary counselors and program instructors.

With regard to documenting progress, actions made based on the needs assessment are limited without a clear set of goal-oriented criteria. For example, in examining scope, more work should be geared toward identifying ways that high-skill, high-wage, and in-demand are being defined so that the criteria for preparing students for these occupations can be used in an evaluation.

Finally, here is an in-exhaustive list of points worthy of further investigation:

- An evaluation is needed of how well programs prepare students to enter and exit at multiple points throughout their career and education.

- Data charts, such as those prepared by P-20 or the Hawaiʻi Industry Sectors, are needed to compare the frequency of concentrators (and completors) in programs of study with the frequency of positions available in high-skill, high-wage, and in-demand occupations that correspond with those programs of study.

- More information or discussion about what formulas are being used for funding high schools is needed.

- A set of procedures for interviewing students and families contacted through the DOE is needed to make the process more feasible.

- Develop a template for the local agencies to conduct needs assessments of their programs.

The list can go on with more suggestions based on what should have been done. However, the present needs assessment was successful in collecting data that represented the voices of many participants in the system.