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# STATE OF HAWAII WORKFORCE DEVELOPMENT COUNCIL DEPARTMENT OF LABOR AND INDUSTRIAL RELATIONS

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December 27, 2007

The Honorable Linda Lingle Govenor, State of Hawaii State Capitol Honolulu, Hawaii 96813

Dear Governor Lingle:

In accordance with the requirements of Act 283, SLH 2007 (Senate Bill 1931), attached is a hard copy and an electronic file documenting the Educational Workforce Working Group's findings and recommendations for improving Hawaii's educational system to address the workforce needs of the future.

A number of Working Group members shared a pervasive sense of concern regarding the quality of students emerging from public schools in Hawaii today, and many issues surfaced that were considered pertinent to our deliberations and urgent enough to warrant our time and attention. We therefore covered matters beyond the nine issues listed in Act 283.

Our recommendations are directed to parents, businesses, community groups, and government agencies, in addition to Hawaii's public education system. The Working Group believes it will take a concerted effort on all our parts to realize a public education system that will support the State's economic development goals and raise the standard of living of Hawaii's people. Please call upon us to assist in this critical undertaking.

Sincerely,

Gregg Yamanaka, Chair Workforce Development Council

# Report to the 2008 Legislature

# Findings and Recommendations of the Educational Workforce Working Group

Pursuant to Act 283
Session Laws of Hawaii 2007
Submitted December 27, 2007

### Members

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Disclaimer: Positions taken by members of the SB1931 Educational Workforce Working Group in the course of discussion and included in this report may not be construed as those of the organizations they represent.

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## **Executive Summary**

The Educational Workforce Working Group ("Working Group") created by Act 283, SLH 2007 finds that Hawaii must break out of the endless rhetoric about "fixing" Hawaii's public education system and take actions that will result in graduates ready and motivated to immediately pursue additional training and education, or move seamlessly into the workforce. To do this, the Working Group concludes that there is a critical and urgent need for parents, businesses, community groups, and government agencies to join in helping Hawaii's public education system produce talented graduates that will drive a robust economy, and in so doing, ensure an increasing standard of living for themselves and their communities. Further, the Department of Education and University of Hawaii System must themselves become instruments of change and do what is necessary to achieve:

- a coordinated, articulated, seamless, efficient, and effective educational system for lifelong learning, from pre-kindergarten through lifelong learning,
- personalized education that maximizes each student's potential,
- highly qualified and effective educators,
- institutions of excellence, and
- education facilities that support student achievement.

The Working Group recommends the establishment of "stretch academic goals" for our public education system, such as the following.

- 1) Reduce the need for remedial education in post secondary education by half within five years. Support existing programs that help achieve this goal.
- 2) Double the number of K-12 students that can pass national proficiency exams within five years.
- 3) Ensure that by 2025, 55% of working age adults in Hawaii will have a college degree (Associate, Bachelors, or Advanced).
- 4) Strive to prepare 100% of Hawaii's students for meaningful employment and effective participation in adult life. Ensure quality schooling for those who will not pursue a post-secondary degree.<sup>1</sup>

If we are to attain these institutional characteristics <u>and</u> achieve these "stretch academic goals" <u>together</u> we must take action. If we accept that those goals and the necessary change and transformation of the educational system are vitally important to Hawaii's future, resources must be prioritized and provided, and business and community involvement must be fully committed and coordinated.

Towards this end, the Working Group has seven sets of recommendations with 25 action steps. The Working Group's first set of recommendations is to provide guidance to Hawaii's

If 55% of Hawaii's working age adults are to have a post-secondary degree by 2025, a number of incumbent workers and 60 - 70% of today's 5 - 24 year olds still in school need to attain them. This leaves 30 - 40% of today's students who are not expected to earn more than a one-year Community College Certificate, a high school diploma, or a GED.

public education system in the form of clear statements of expectations with respect to work-relevant education. The second set of recommendations establishes measurable goals, with benchmarks to facilitate achievement of those goals, which will result in institutions of excellence and facilitate lifelong learning through a strong, seamless statewide "education pipeline". The third set creates a series of options that will tailor the education system's offerings to meet individual student needs. The fourth set of recommendations provides incentives to encourage behavior and the adjustments needed to bring about desired changes. The fifth set utilizes the education system's physical property to better support priorities. The sixth set embeds work-relevance into the public education system. Lastly, the seventh set of recommendations relates to a marketing campaign to engage parents, business and community leaders in the education process. The seven sets of recommendations may be summarized as follows.

Recommendation #1: Align Work-readiness Expectations among the DOE, UH System, and

Business and Community Leaders and Implement

Recommendation #2: Support and Monitor More Challenging Curricula and Educational

Goals

Recommendation #3: Create a Series of Optional Learning Paths and an Assessment

(Tracking) System

Recommendation #4: Develop System of Financial Performance Incentives

Recommendation #5: Optimize Use of Physical Assets

Recommendation #6: Develop a Network of Resources to Connect Businesses and the

**Education System** 

Recommendation #7: Conduct a Public Information Campaign about why an education system

that is able to meet business needs should be a priority for all

stakeholders.

#### **Overview**

We, the Educational Workforce Working Group (Working Group), would like to thank the Legislature for this opportunity to offer findings and recommendations on Act 283, SLH 2007. The members of the Working Group were highly engaged and committed to offering worthwhile advice and guidance on each question posed. The diversity of views resulted in informed and thoughtful recommendations for the State's workforce stakeholders, which includes educators, government agencies, business and community leaders, and the Legislature.

There was a pervasive sense of concern expressed by a number of Working Group members regarding the quality of students emerging from public schools in Hawaii today. Many issues surfaced that were considered pertinent to our discussions and pressing enough to command our time and attention, albeit somewhat beyond the mandate of Act 283. There emerged a desire to reach beyond the letter of the Act and challenge the state, the system, and ourselves to overcome the unevenness of current outcomes and excel. Therefore, in addition to offering specific recommendations for each of the nine questions we were asked to address in Act 283, we are including recommendations regarding the mission and vision of our public education system from the perspectives of a diverse group of business and community members. We believe these recommendations can dramatically improve the quality of life for students, teachers, and administrators, and significantly advance the cultural, social and economic vitality of Hawaii.

To begin with, we propose the following:

- The vital **Mission** of the Department of Education ("DOE") and University of Hawaii ("UH") System must be embodied within, and championed throughout, the public education system and the broader community. We believe there should be a common mission adopted throughout the DOE and UH System. We believe business and community groups should share this Mission as equal partners in working towards achievement of the goals that emanate from the Mission.
- To the extent it is not already in place, the **Vision** of each public educational institution should incorporate this Mission and be based on the socio-demographic profile, needs and opportunities that exist within a particular community.
  - Communities should have a center for localized interaction and learning, wherever the community is willing and able to develop and support the concept. The community centers could be located at publicly-accessible institutions, such as recreation centers, a military installation, or a public school.

Visions can be empowering and motivating and promote activity towards achievement of the mission. The community should increase efforts to engage students, parents and schools in a mutually supportive system of programs and services that encourage the development of each, to the benefit of all. Parents and the entire community should understand fully the important role that higher

educational attainment and skills proficiency play in a student's ability to attain self-sufficiency and the economic health of the community.<sup>2</sup>

Consistent with these concepts, the Working Group proposes that the following five characteristics be incorporated into DOE and UH System **Goals**:

- 1) a coordinated, articulated, seamless, efficient and effective educational system for lifelong learning, from pre-kindergarten throughout adult life,
- 2) personalized education that maximizes each student's potential,
- 3) highly qualified and effective educators,
- 4) institutions of excellence, and
- 5) education facilities that support student achievement.

To fulfill these goals, the Working Group has seven sets of recommendations.

The Working Group's first set of recommendations is to provide guidance to Hawaii's public education system in the form of clear statements of expectations with respect to a work-relevant education. The second set of recommendations establishes measurable goals, with benchmarks to facilitate achievement of those goals, which will result in institutions of excellence and facilitate lifelong learning through a strong, seamless statewide "education pipeline". The third set creates a series of options that will tailor the education system's offerings to meet individual student needs. The fourth set of recommendations provides incentives to encourage behavior and the adjustments needed to bring about desired changes. The fifth set utilizes the education system's physical property to better support priorities. The sixth set embeds work-relevance into the public education system. Lastly, the seventh set of recommendations relates to a marketing campaign to engage parents, business and community leaders in the education process. Specific recommendations included in each set of recommendations may be summarized as follows.

Recommendation #1: Align Work-readiness Expectations among the DOE, UH System, and Business and Community Leaders and Implement

- 1) Establish common understanding of education-workforce expectations among educators and business and community leaders
- 2) Revise statutory requirements related to attendance and punctuality
- 3) Provide DOE and UH System with resources to meet expectations and excel
- 4) Report Progress

A goal could be to actualize this vision and reduce social problems in a neighborhood by 15% by 2015.

## Recommendation #2: Support and Monitor More Challenging Curricula and Educational Goals

- 5) Establish education-workforce "stretch goals"
- 6) Engage parents and business and community leaders to address education-workforce "stretch goals"
- 7) Support work of the Hawaii P-20 Initiative towards setting education goals and benchmarks for student outcomes
- 8) Others consider adopting P-20 goals
- 9) Support acquisition and implementation of more challenging curricula and assessment
- 10) Support incentives for teacher education and training
- 11) Establish early warning systems and interventions to assist at-risk students
- 12) Expand Running Start program and create a challenging senior year

# Recommendation #3: Create a Series of Optional Learning Paths and an Assessment (Tracking) System

- 13) Provide students with experiential and applied learning options
- 14) Conduct a pilot for a stand-alone, vocationally-directed school for at-risk students
- 15) Establish a long-term tracking system of student performance to assess the effectiveness of programs and reforms
- 16) Persuade agencies maintaining data needed by tracking system to share data

# Recommendation #4: Develop System of Financial Performance Incentives

- 17) Develop institutional performance incentives
- 18) Develop scholarship support for students who meet proficiency goals or enter targeted fields of study

#### Recommendation #5: Optimize Use of Physical Assets

- 19) Redirect underutilized DOE property to support priorities
- 20) Provide incentives to businesses to provide access to private-sector equipment and facilities by the public education system

# Recommendation #6: Develop a Network of Resources to Connect Businesses and the Education System

- 21) Connect businesses and the education system
- 22) Incorporate work-relevance in coursework
- 23) Provide educators with work-relevant training

# Recommendation #7: Conduct a Public Information Campaign

- 24)
- Design and deliver a social marketing campaign Through the information campaign, engage business community in 25) education system

# **Act 283 Findings and Recommendations**

# Findings/Recommendations #1

Align Work-readiness Expectations
Among DOE, UH System, and Business and Community Leaders
and Implement

#### **Findings**

It is the Educational Workforce Advisory Group's conclusion that Hawaii faces a critical period in its workforce development and deployment. Hawaii must clear high hurdles if it is to compete in the emerging global marketplace. These hurdles confront us in all areas of the economy: in changing tourism markets, in more complex military procurement needs, in effectively developing emerging growth industries, and in efforts underway to improve the state's economy. At the heart of this issue is our willingness to confront and take timely action toward substantially improving workforce readiness, which will define Hawaii's future quality of life and whether or not our state's economy is sustainable.

We must also take note of the fact that inextricably woven into the fabric of our workforce challenges are the opportunities our children will have in the near future. A failure to provide our emerging economy with a skilled and plentiful workforce will most assuredly restrict the economic options of the next generation of Hawaii residents and accelerate the exodus of our best and brightest. What is disturbing is that this threat is not well perceived by the public at large. A recent public opinion survey indicates an ambivalent attitude toward educational attainment by a significant percentage of those polled, giving us cause for genuine concern.

The Working Group does not lay the burden or assign blame for our workforce problems on any one group or profession. Such a burden is unfair and counter-productive. We are convinced that the vast majority of educators, administrators, legislators and other stakeholders are doing their best, within the existing framework, to turn out well-educated students. Rather, we see this as a systemic problem that will require fundamental changes, statewide actions and involvement at all levels of our community.

An educated, skilled workforce is the foundation of a healthy business community and rising standard of living. Business and the larger communities, in particular, need to make a commitment of their available resources on a consistent and timely basis to ensure the success of the recommendations made here. Three words describe what the alignment of our mutual efforts requires to achieve this success: *demand*, *provide* and *measure*. Demand results, provide the resources and incentives, and then measure the results.

Hawaii's public education system can better prepare its students to meet the state's future workforce needs if it is provided with a clear statement of its roles and responsibilities towards preparing its students for the workforce.<sup>3</sup> Further, the Working Group finds that an effective approach to preparing students for the workforce is to provide:

- students with experiential and applied learning opportunities,
- students with basic STEM (science, technology, engineering, and math) competencies,
- teachers with the training and resources needed to develop and support workrelevant curricula, teaching techniques, and learning opportunities, and
- DOE and UH systems with the resources need to meet additional expectations.

It is a major concern that an inadequate number of high school graduates possess the basic STEM skills needed to move easily into pre-engineering, science and technology programs at either the four-year college level, or into the technology programs of the community colleges. In fact, high school students appear to be moving away from science and technology. For instance, while there has been improvement over the last several years, enrollments in the College of Engineering at the University of Hawaii are still currently down roughly 25% from the mid-1980s. Moreover, according to the National Center for Public Policy and Higher Education, only 18% of Hawaii's eighth graders test proficient in math compared with 38% among the top states. In science only 15% of Hawaii eighth graders test proficient compared with 41% among the top states. 4 Hawaii must increase its talent pool by vastly improving K-12 STEM education.

#### Recommendations

It is the Working Group's understanding that current practice is to provide schools/campuses with as much autonomy as practicable, to permit each school/campus to adapt its offerings to meet the individual and specific needs of the populations they serve. However, there must be a higher-level commonality that incorporates the expectations of business and community leaders of Hawaii's public education system<sup>5</sup> and how it prepares students for the workforce.

With respect to preparing students to join the workforce, the Working Group recommends that a common understanding be reached among educators, business and community leaders, and

See Appendix B, the Working Group's findings on the nine SB1931 issues, for discussion of this finding.

Source: House Bill 1268 (2007)

The term "public education system" refers to both the DOE system and the UH System. The DOE system includes elementary, middle and high schools; Charter Schools; and the Adult Community Schools. The UH System includes 10 campuses; UH-Manoa, UH-Hilo, UH-West Oahu, and seven community colleges.

conveyed by the Legislature, that Hawaii's public education system will provide:

- opportunities for experiential and applied learning,
- incorporation of work-relevance into course work, including information with which students and parents may make wise college and career choices,
- opportunities for students to acquire the skills and personal qualities needed for solid job performance, as identified by the U.S. Department of Labor's Secretary's Commission on Achieving Necessary Skills<sup>6</sup> ("SCANS"), and
- opportunities for students to acquire basic STEM competencies.

A Legislative statement of expectations should reasonably incorporate the expectations of the broad constituency that it represents; i.e., businesses, the community at large, federal/IDEA<sup>7</sup>/NCLB<sup>8</sup> requirements, school reform efforts and School Community Councils<sup>9</sup>, the UH Board of Regents, the Board of Education, and each major workforce community<sup>10</sup> in Hawaii.<sup>11</sup>

The Working Group also recommends that the Legislature support the public education system's efforts towards incorporating work-relevance by advancing the following:

The Working Group finds that readiness for work has been adequately identified and described in the reports of the United States Department of Labor's Secretary's Commission on Achieving Necessary Skills ("SCANS"). The SCANS commission found that workplace know-how defines effective job performance. This know-how has two elements: competencies and a foundation. See Appendix C and http://wdr.doleta.gov/SCANS/ for further details.

IDEA is the acronym for the Individuals with Disabilities Education Act, a law that ensures services to children with disabilities throughout the nation. IDEA governs how states and public agencies provide early intervention, special education and related services to more than 6.5 million eligible infants, toddlers, children and youth with disabilities.

NCLB is the acronym for the No Child Left Behind Act. NCLB was signed into law January 8, 2002. It is the latest revision of the 1965 Elementary and Secondary Education Act ("ESEA"). The overall purpose of the law is to ensure that each child in America is able to meet the high learning standards of the state where he or she lives.

SCC is the acronym for School Community Councils, which are elected advisory boards that will also develop and review new school policies, focus on student achievement, and participate in the evaluation and selection of the school's principal.

<sup>&</sup>quot;Major workforce communities" include groups and industries such as teachers, medical/healthcare industries, construction industry, hospitality/tourism, technical, social services.

The American Diploma Project is developing a statewide common definition of "career and college readiness" in order to communicate clearly about the preparation required to be employed in living wage jobs.

• Revise the state's statutory requirements related to attendance and punctuality.

Improvement in attendance and punctuality is paramount to improved outcomes. It is also a good initial step towards engaging increased numbers of parents and guardians in the education process. The following three states provide good models for strengthening Hawaii's statutes, particularly Kentucky.

Kentucky Title XIII – Education

Chapter 159.00 – Compulsory Attendance<sup>12</sup>

California Title I – General Education Code Provisions

Part 27 – Pupils

Chapter 2 – Compulsory Education Law

Article 5 – Truants Article 6 – Violations

EC Section 48260.5; EC Section 48293 (a), (b), (c)<sup>13</sup>

Florida Title XLVIII – K-20 Education Code

Chapter 1003 – Public K-12 Education

Part II – School Attendance<sup>14</sup>

Appendix D is a copy of statutory requirements in the three states.

• Provide individual schools with resources needed to meet specific expectations, including those required by other Recommendations in this report.

Lastly, the Working Group recommends that a periodic report on progress towards addressing its education-workforce-related expectations be included in existing reports<sup>15</sup> to the Legislature. The DOE and UH System should be permitted to determine how progress will be demonstrated and reported. To the extent resources are needed to meet the Legislature's expectations, the periodic reports should identify, request and justify the additional resources.

http://www.lrc.ky.gov/KRS/159-00/CHAPTER.HTM

http://www.leginfo.ca.gov/cgi-bin/calawquery?codesection=edc&codebody=&hits=20

http://www.leg.state.fl.us/statutes/index.cfm?App\_mode=Display\_Statute&URL=Ch1003/part02.htm&StatuteYear=2007&Title=%2D%3E2007%2D%3EChapter%201003%2D%3EPart%20II

For example, this information could be included in the DOE Superintendent's Annual Report and the University of Hawaii System's Annual Report to the Legislature on Government Operations (Act 100, SLH 1999 and HRS 304-4.5).

To the extent the DOE's Senior Projects and Personal Transition Plans help fulfill the education-workforce-related expectation, reports on their effectiveness should be encouraged.

To the extent DOE's General Learner Outcomes ("GLOs") correspond to SCANS competencies and skills, it should be allowed to report student achievement in terms of its GLOs.

# Findings/Recommendations #2

# Support and Monitor More Challenging Curricula and Educational Goals

#### **Findings**

Starting with the importation of workers for the sugar industry beginning in the 1850s, Hawaii has been dependent upon an imported workforce to fully meet its labor needs. However, over the past thirty years, the infrastructure needed to sustain that model—low-cost housing and free healthcare provided by the employer—has largely disappeared. The growing gap between salaries and the cost of sustaining a middle-class lifestyle has made it increasingly difficult to import and retain skilled workers. In the face of this, we must prepare more of our young people with the higher skills needed to be productive, self-sufficient participants in our economy.

But that is apparently not what is happening. The educational attainment of Hawaii's population is declining. Overall, Hawaii's people have had a relatively high level of educational attainment with more working age adults holding a college degree than for the nation as a whole. However, attainment is highest among the age group, age 55-64, a cohort that is preparing to retire, and each younger age group has less educational attainment. Hawaii is one of a handful of states where our older generation is more educated than our younger generation. Our educational capital is declining as the demands of global competitiveness, our local economy, and participation in the information age requires a higher level of education.

A major impediment in the workforce preparation process is the relatively poor performance of our education pipeline – that is, the process of education from pre-kindergarten through post-secondary training/education and into the workforce. Hawaii is ranked 45<sup>th</sup> among the 50 states in productivity of our education pipeline. To improve, we need to get a larger percentage of our young people to complete high school and prepared to succeed in post-high school education and training, without a need for remediation classes before they can start a post-secondary program. This would allow more people to participate in the workforce with appropriate post-secondary training, degrees and certificates, in a timely manner. In addition, we need to increase our post-secondary degree production, particularly in areas where we have worker shortages, such as education, health sciences, and technology related fields. The failure to reach consensus among our educators, business community and government on the goals we need to achieve as a state, or the levels of institutional and student performance needed to attain a qualified workforce, is holding back Hawaii's economy.

#### Recommendations

The Working Group recommends that the Legislature support the public education system's efforts towards improving student outcomes by advancing the following.

Establish Education-Workforce "Stretch Goals" 18

Once a common understanding of expectations is attained, programs should be aligned and targeted outcomes clearly identified. There is an emerging consensus 19 that (a) all high school graduates should be prepared for entry level in either the workforce or post-secondary training/education programs ranging from technical or apprenticeship training to 2-year or 4-year programs at the community college level and higher. This will require attainment of STEM competencies, and (b) more students should enroll in post-secondary training/education and more should attain degrees and credentials in-line with their educational goals.

The Educational Workforce Advisory Group believes the state must commit to "stretch goals" in order to achieve meaningful results. These recommendations include the following.

- Reduce the percentage of high school graduates needing remedial education 1) before full entry into post secondary education programs by half within five years. Support existing programs that help achieve this goal.
- 2) Double the percentage of K-12 students that can pass national proficiency exams within five years.
- Ensure that by 2025, 55% of working age adults in Hawaii will have a postsecondary degree (Associate, Bachelors, or Advanced). To reach this goal the Educational Workforce Advisory Group calls for:
  - Doubling the percentage of  $9^{\text{th}}$  grade students enrolling in post-secondary a. education and earning a degree or certificate in line with their educational goals in a timely manner<sup>21</sup>. (In 2004 the percent was 12.8. National average was 18.4 and best performing states were at 27.3.)

This recommendation reflects the work of similar efforts by the DOE, P-20's American Diploma Project, and the work of a National Governors Association ("NGA") Center for Best Practices Pathways to Advancement Project.

It may be effective to document the public education system's goals and priorities through legislative statutes and the policies of the Board of Education. Hawaii Revised Statutes for K-12 could articulate the overall goal for education and priorities, including work readiness. The written policies of the Board of Education can provide direction to the education system by elaborating on the roles of the schools and DOE in achieving the goals and priorities.

Within 150% of normal program time to acquire degree.

- b. Increasing by 10 more percentage points, the percent of 9<sup>th</sup> graders who graduate and enroll in post-secondary education immediately after high school. (In 2004 the percent was 33.4%. National average was 38.8% and best performing states were at 57.3%.)
- c. Reducing by half the percentage of first year college students needing to enroll in post-secondary remedial education and increase the success rate of those students who do participate in remedial course work. (The actual current percentage is yet to be agreed upon, but estimates are substantial)
- d. Increasing the percentage of high school graduates appropriately prepared for careers and college, including their attainment of STEM competencies.
- Engage Parents, Business and Community leaders in addressing Education-Workforce "Stretch Goals"

This Working Group strongly recommends a significant increase in engagement in the educational process of the business community, not-for-profit organizations, students, parents and the larger community in the execution of an action plan to implement its recommendations. Education cannot do this alone.

As students adhere to a list of expectations embodied in a *code a conduct*, likewise, parents, businesses and community groups should also have a compact or list of expectations which states their commitment and involvement in the education process to achieve improved outcomes.

- Support the work of the Hawaii P-20 Initiative in setting state-level education goals and benchmarks for educational outcomes that are needed at each level of education needed to close gaps in achievement, performance, and workforce demands. (The emerging consensus regarding education-workforce goals mentioned in Recommendation #1 includes preliminary P-20 goals.) The Hawaii P-20 Initiative is also working to identify the intermediate benchmarks necessary to achieve its goals; intermediate benchmarks will align with Department of Education and University of Hawaii benchmarks, where appropriate. Quantitative and qualitative intermediate benchmarks may include:
  - ▶ 9<sup>th</sup> grade on-time promotion rate
  - ▶ Participation in STEM courses
  - ▶ On-time high school graduation rate
  - ▶ All students graduate high school ready for careers and college<sup>22</sup> who attain STEM competencies
  - ▶ More high school graduates enroll in post-secondary education immediately after high school
  - ▶ More residents in underrepresented populations (e.g., Hawaiian, Pacific Islander, Filipino, low-income) will enter post-secondary education<sup>23</sup>

This is a 2018 goal in the DOE's Strategic Plan.

- Decrease rate of placement into remedial and developmental courses at the University of Hawaii<sup>24</sup>
- ▶ Increase success rate of students in University of Hawaii remedial and developmental courses<sup>25</sup>
- More residents who attend University of Hawaii will meet their educational goals, earning credentials and degrees in a timely manner<sup>26</sup>
- ▶ Number of adults needed to return to earn post-secondary degrees
- Once the Hawaii P-20 Initiative develops intermediate benchmarks, different industry, government, business and planning groups should consider adopting the same goal and benchmarks. Department of Education and University of Hawaii's future strategic planning should align with the goal and benchmarks. New policies and funding sources will be needed to meet the benchmarks.
- Support the acquisition and implementation of more effective and challenging curricula and assessment at all educational levels that result in an increasing percentage of students being measured as proficient; and
  - ► Fund DOE's budget request for end-of-course testing (e.g., Hawaii's participation in the American Diploma Project multi-state Algebra I and Algebra II End of Course tests)
- Support through appropriate incentives<sup>27</sup> teacher education and training necessary to effectively implement the above curricula at the early childhood, K-12, and higher education levels.
- Establish early warning systems and interventions that facilitate on-time graduation and prepare students for careers and college. Interventions may include peer teaming, after-school drills, industry coaches, college coaches, and adequate counseling support.
- Most students are able to learn more advanced concepts and processes at the high school level. Create a senior year that is more challenging through expanded Running Start participation. Give students the opportunity to meet first-year requirements in college Career and Technical Education ("CTE") programs, while gaining credit for high school graduation. Focus on the neglected majority of students to revitalize, interest and develop their career paths, whether it be university or community college level education, military service and training, or directly to work through apprenticeship or corporate training programs.

<sup>&</sup>lt;sup>23</sup> This is a goal from UH's Access with Success Initiative

<sup>&</sup>lt;sup>24</sup> This is a DOE Strategic Plan goal.

<sup>&</sup>lt;sup>25</sup> This is a UH Achieving the Dream project goal.

<sup>&</sup>lt;sup>26</sup> This is a UH Achieving the Dream project goal.

This should be part of the system of financial incentives proposed in Recommendation #4.

# Findings/Recommendations #3

Create Series of Optional Learning Paths and an Assessment (Tracking) System

#### **Optional Learning Paths**

#### **Findings**

The Working Group finds that there is a need for ownership and stewardship for developing and enabling our education system to fulfill the projected workforce needs of our future in both numbers of workers and quality of the workforce at all levels, encompassing:

- K-12 system,
- High school graduates,
- College graduates,
- Incumbent workers,
- General public, and
- Business community.

See Appendix B for further background on this finding.

#### Recommendations

Create a series of optional learning paths to allow students who learn in modes other than reading and listening to have experiential and applied learning experiences. Examples of what has been done include the following:

- 1) integrating classroom learning with internship experiences in business (e.g., in Hawaii, an automotive academy was funded by a major local bank with internship placement funded by a local auto dealership for high school juniors and seniors),
- 2) bringing industry to the school setting through guest speakers/trainers and mentorship,
- 3) placing students in alternative learning environments such as the Employment Training Center ("ETC") for at-risk youth (because too few opportunities are available),
- 4) developing integrated academies between high schools, businesses, and community college programs for specific pathway educational experiences (e.g., Mount Hood Community College in Portland and Gateway Technical College in Kenosha),
- 5) creating an academy high school in a business setting (e.g., Lake Geneva resort's Hospitality Institute),

- 6) imbedding college technology teachers in high schools programs, teaming along side high school technology teachers in CTE areas (e.g., UH Community Colleges' Construction Academies and proposed STEM Academies),
- 7) creating a technology high school with competitive enrollments to serve as an island-wide magnet for multiple CTE paths (e.g., Eastern Tech High School in Baltimore, Thomas Edison Technology High School in Maryland), and
- 8) optimizing use of the web-based learning opportunities being developed through ACT 275, SLH 2007<sup>28</sup>.

The Working Group recommends a pilot project to create a DOE specialized school for students with difficulty conforming to a traditional school setting. The pilot could test several of the proposals contained in this report, such as identifying a school with declining enrollment and redirecting its resources to support a priority. The proposed setting could provide at-risk students with coursework that will prepare them for careers in occupations needed by the State. There would be an additional benefit of alleviating disturbances in traditional schools. The goal of the pilot project should be to create a model that may eventually be expanded to facilitate growth of at least one such magnet school per complex area.

In conjunction with the optional learning paths, the Working Group recommends that a long-term tracking system be created to monitor students as they transition from a formal education into the workforce. The purpose of collecting this information is to provide educators with feedback on the effectiveness of their workforce-related programs and other educational reforms. The proposed system would follow students as they transition from a formal education through the workforce. The expectation is that information on students who do not continue onto a post-secondary education would be particularly valuable for DOE planning purposes, and the proposed tracking system would be designed to provide the DOE and UH with information it needs for effective planning. In addition, agencies maintaining data needed for the proposed tracking system must be persuaded to share their data.

#### Performance Tracking

#### **Findings**

An essential element of educational reform is a system to assess how effective those reforms really are and why. In this way changes can be made to improve the results. Moreover, an effective assessment system should not only measure the impact on academic achievement attributable to the reforms, but also the long-term impact on achievement in terms of careers and earnings. Without the ability to track the ultimate results of new programs and additional resources devoted to educational reform, resources could be wasted or misdirected in marginally effective efforts. No one agency maintains or collects the data needed for a tracking system that

Act 275, SLH 2007 (HB 598 HD1 SD1 CD1) created an Online Learning Task Force and requested preparation of a plan to expand opportunities for online learning to enhance the learning experiences of students across the state. The Act directed that the plan include technological options for learners, with 24/7 access to learning opportunities. The Task Force's report is due to the Legislature on December 27, 2007.

monitors enrollment in education systems, educational outcomes, participation in programs, and workforce participation. Consequently it can only work if the relevant agencies are willing to contribute data to the system.

There are a number of current efforts underway to improve the assessment of student performance. The Hawaii P-20 initiative is piloting a reporting system that tracks students longitudinally from DOE to UH. Hawaii has also received a grant from the National Governors Association to develop an Outcomes Accounting System ("OAS") to assess the effectiveness of STEM initiatives passed in the 2007 legislature. These efforts provide a starting point for the development of a comprehensive performance measuring system.

Such a tracking system need not involve all students undergoing an educational program; only a sufficient sampling of students to ensure statistical accuracy. This also increases the chances that a sufficient number of students can be recruited on a voluntary basis for the performance assessment system.

Because no one agency has the complete range of data for such a performance tracking program, it is vital that agencies work to develop data sharing agreements for the overall good. Fortunately, electronic storage of a wide array of data has become commonplace among State government agencies. This creates opportunities to use this data to address important questions related to assessing educational performance and setting public policy.

All agencies and businesses in Hawaii stand to gain from an effective, high performance education system. Their participation in an assessment system should be encouraged, and where possible, rewarded to the extent possible.

#### Recommendations

The Working Group recommends that current and emerging programs seeking to track student progress should come together into a joint effort that can result in a comprehensive tracking system to assess the performance of the spectrum of educational reform efforts and resource allocations. An appropriate entity should be tasked to convene the agencies and chair the effort. In addition, agencies maintaining data needed for the tracking system must be persuaded to share their data.

# Findings/Recommendations #4

# Develop System of Financial Performance Incentives

#### **Findings**

Making the changes necessary to meet Hawaii's growing need for a qualified workforce requires significant changes in both student and institutional behavior across all levels of the education pipeline. There have been numerous attempts to implement the systemic changes necessary to achieve the results we desire to attain. Most of these attempts have been less than successful because they have rarely dealt with a change fundamental: the incentives for students, parents, and institutions to adopt new and more desirable behaviors. Dennis Jones described this dilemma in his presentation to the Working Group; in his words, the policy environment you have yields the results you're getting. Our current policy environment lacks any incentives for new behavior on the part of students, their parents, or institutions that would lead to the results we are trying to achieve. Unless we try different approaches to policy, those promoting the attainment of specific outcomes, current behavior is likely to persist.

#### Recommendations

The Working Group recommends development of a system of financial performance incentives, including the following.

- Develop institutional performance incentives by appropriating additional revenue that is available to the education institutions <u>only</u> if specific performance goals are attained.
- Develop scholarship support for students who meet educational proficiency goals, or who enroll in and graduate in fields of study that are a high priority for the state. This would communicate the importance of educational preparation for college, improve students' likelihood of success, and increase the number of graduates in high priority fields.
  - Continue and/or increase funding of the State of Hawaii B Plus Scholarship which provides University of Hawaii scholarships for Department of Education graduates who complete a challenging high school curriculum, have a 3.0 high school GPA and demonstrate financial need.
  - ▶ Support a STEM scholarship for Hawaii high school graduates who demonstrate attainment of STEM competencies and/or preparation to enter STEM fields, and who plan to attend Hawaii institutions of higher education.
  - Develop an early intervention program that commits students to prepare for career and college readiness at a young age (e.g., middle school), provides information and support to become career and college ready, and provides

post-secondary scholarship or tuition support for ready students (e.g., Indiana's 21<sup>st</sup> Century Scholars Program, Oklahoma's OHLAP program, Hawaii's GEAR UP Scholars program).

# Findings/Recommendations #5

# Optimize Use of Physical Assets

#### **Findings**

According to the 2005 report of the Economic Momentum Commission ("EMC"), the average age of Hawaii's public school buildings is about 60 years. Nearly half of the schools are significantly over-capacity for the size of their student populations, while another 25% are overcrowded. Due to demographic trends, many of the older urban elementary schools are significantly under utilized while many suburban schools are bursting at the seams. Despite an actual decline in the student populations over the last 25 years, Hawaii has added a significant number of new schools to accommodate demographic shifts, but has continued to maintain older, under utilized facilities, adding to the overwhelming backlog of repairs and maintenance and burdening the entire system. According to the EMC, this has occurred because we have lacked the political will and leadership to close these older schools, consolidate the smaller urban student populations in more suitable facilities and spread the savings among all of Hawaii's school children. With strategic consolidation, the EMC concluded that the State and DOE could free up valuable real property assets that could be leveraged to provide financial resources to reinvest into upgrading our schools.<sup>29</sup>

#### Recommendation

Consistent with the EMC recommendations, the Working Group recommends that the State sell or lease for redevelopment prime real estate occupied by marginally enrolled schools. Displaced students should be consolidated into improved facilities. The capital gained could be utilized to:

- transform existing schools to state-of-the-art learning environments through meaningful technological renovations,
- upgrade teacher skills through training in innovative hands-on teaching techniques,
- develop more creative and focused learning spaces and communities (e.g., Vancouver, Washington high schools), and
- imbed industry standards for content and personal learning and work habits into the curriculum.

Source: Economic Momentum Commission draft recommendations dated November 1, 2005 and final report, December 2005.

May includes summer jobs and part-time jobs, as well as donation of material and other forms of support.

# Findings/Recommendations #6

Develop a Network of Resources to Connect Businesses and the Education System

#### **Findings**

The Working Group finds that Hawaii's current workforce needs are not currently being met, and that there are actionable steps that may be taken within Hawaii's public education system, in cooperation with the private-sector and state government, to alleviate this situation. There is a need for Hawaii's public education system to facilitate, organize and promote partnership opportunities for experiential and applied learning for each student.

There is also a significant need for Hawaii's business community to support a work-relevant public education system by providing the real-world resources (time, material, expertise) with which educators may enrich their course offerings. Government agencies such as the State's Department of Land and Natural Resources and the Department of Health may also be able to provide students with learning opportunities.

The Working Group further finds that there are a number of initiatives in place and/or inprogress that are intended to address the need for further work-relevance in public education and to better prepare students for the workforce and a post-secondary education. This situation gives rise to the question of (a) whether the existing programs are effective and just need more time and resources with which to achieve their goals, or (b) whether the existing programs are insufficient to address its part of meeting current and future workforce needs. There is clearly a need for better coordination and sharing of information among existing programs.

#### Recommendations

The Working Group concludes that it does not have enough information with which to make recommendation related to existing DOE and UH workforce-related programs. However, the Working Group recommends that a business-education partnership startup project be initiated to address the needs identified throughout this report by creating and embedding a network of resources between Hawaii's businesses and its public education system. The network should include, at a minimum, the following three links:

Link #1: Businesses and the Public Education System,

Link #2: Work-relevance and School's Offerings, and

Link #3: Educators and Work-relevant Training

and a permanent Assessment System.

The project should have a finite life of approximately 3 years, with milestones and reporting requirements, and designed to establish the framework and structure for a permanent partnership between business and education. A project manager should be retained and report to an education-workforce stakeholder outside of the education system. The Project should be guided by an advisory committee composed of stakeholders from education, economic

Findings and Recommendations

development, and workforce development. The project should work in concert with and not supplant existing programs working to achieve similar or related goals. The project could even be merged with one or more existing efforts if that is deemed appropriate.

#### Link #1: Businesses and the Public Education System

The Working Group envisions the purpose of Link #1 as increasing the number of experiential and applied learning opportunities available to students by creating and maintaining an easily accessible repository of information and resources that facilitates participation by the private-sector and through which educators may readily incorporate effective work-relevant activities into their lesson plans. Work on Link #1 could include the following.

- 1.1. Developing a <u>user-friendly process</u> by which business and individuals volunteer to provide work-related learning opportunities<sup>31</sup> to students, and educators can readily find the available opportunities. The process should include:
  - simplified "paper work" (e.g., develop standard documents to formalize agreements between individual schools and business interested in volunteering),
  - where practicable, expand use of best practices (e.g., the Kauai practice by which businesses adopt-a-school), and
  - to the extent acceptable, support or serve as a resource to existing programs [e.g., 3 R's, 3 T's, Joint Venture Education Reform ("JVEF"), Project East (Women in Technology)<sup>32</sup>, programs funded by Act 111, SLH 2007<sup>33</sup>]

The process should include business-outreach support. The Project should also address other barriers to business participation, such as concerns related to financial liability.

1.2. Creating a <u>repository of resources</u> available to educators to support experiential and applied learning opportunities that may direct students to jobs and careers needed to support economic development. The "repository" may be limited to information on where the resource can be found, and may include:

Since 2000, the Maui Economic Development Board has established a federal partnership under the Women in Technology program to bring STEM programs known as Project EAST which have been expanded through state, county and private funding to 12 schools on the neighbor islands and new candidate schools on Oahu now underway. Progress in these schools has led to formation of the 3Ts Technology Initiative through the Economic Development Alliance of Hawaii and funding was released in December 2007.

SB885 SD2 HD3 CD1; includes the Hawaii Excellence Through Science and Technology ("HI-EST") Academy pilot program, the Fostering Inspiration and Relevance Through Science and Technology ("FIRST") Pre-Academy program, Robotics and Research Experiences for Teachers programs, and professional development program for science and mathematics teachers.

- a website<sup>34</sup> on which (1) businesses can volunteer their services, (2) teachers may find a learning opportunity that fits with his/her coursework, and (3) that collects lessons-learned and best practices,
- material donations,
- equipment used in prior learning opportunities that are now available, and
- college and career planning information, such as information on (1) job opportunities with existing and emerging industries, and (2) the types of skills and abilities needed to support economic development, to provide students with a reasonable standard of living, and to meet business's workforce needs.

The repository of resources should also serve as a clearinghouse of public- and private-sector initiatives intended to provide students with learning opportunities.

- 1.3. Identifying and establishing <u>incentives</u> for businesses and individuals to volunteer to provide experiential and applied learning opportunities to DOE and UH students.
- 1.4. Providing resources to high schools for education-business coordination.
- 1.5. Providing support for educators and students who participate outside of school hours, including:
  - stipends to teachers to defray out-of-pocket costs,
  - additional pay to teachers for participation outside of normal hours, and
  - out-of-pocket student expenses.
- 1.6 Recommending to the Legislature an incentive program, such as tax credits, to businesses to encourage arrangements wherein student learning can take place on company property utilizing existing commercial equipment and facilities.

## Link #2: Work-relevance and School's Offerings

The purpose of Link #2 is to further embed work-relevance into class work. Work on Link #2 could include the following.

2.1. DOE creation and implementation of career-related programs within each school, with emphasis on jobs needed by the state for economic development and those that will provide a reasonable standard of living;

Website could connect with existing websites, particularly industry association websites. See <a href="http://www.careerkokua.org/re/fc/cr/">http://www.careerkokua.org/re/fc/cr/</a> for an example of an existing website. This is Career Kokua's Community Resource databank.

- career-related elementary school program to increase career <u>awareness</u>, including a speakers bureau,
- career-related middle school program to increase career exploration, and
- comprehensive high school program to increase career <u>preparation</u>.
- 2.2. Reviewing the effectiveness of and resources available to support the existing six UH Career Pathways Advisory Groups. Consider transferring oversight of the Advisory Groups to a business-workforce related State agency or to six appropriate industry associations and increase their scope to include alignment with economic development and workforce development. The increased scope of the Advisory Groups could also serve as a vehicle for alerting the education system and government to changing business needs.
- 2.3. Increasing the availability of and enrollment in targeted areas of study through creation of smaller learning communities (such as academies) and optimum use of technology, including:
  - Advanced Placement (AP) classes in STEM areas,
  - applied learning classes<sup>35</sup> in areas needed in the state <u>and</u> appropriate use of apprenticeship programs and vocational or professional training outside of the school setting, and
  - aggressive pursuit of recommendations by the Online Learning Task Force established by Act 275, SLH 2007<sup>36</sup> to increase learning opportunities through web-based course work.

## Link #3: Educators and Work-relevant Training

The purpose of Link #3 is to better prepare teachers to incorporate work-relevance into their lessons. Work on Link #3 could include the following.

3.1. Ensuring that pre-service teaching strategies at the UH College of Education prepares teachers to incorporate work-relevancy in their instruction by addressing the knowledge, skills and competencies needed for the 21<sup>st</sup> century, in addition to covering academic content.

<sup>&</sup>quot;Applied learning" classes refer to classes that involve competencies expected in the "real world", i.e., Classes are not highly theoretical and not "dummied down".

HB598 HD1 SD1 CD1 (2007) – Relating to Education. Final report on the Task Force's recommendations are due to the Legislature on December 27, 2007.

- 3.2. Providing DOE with resources to support initiatives towards increasing work-relevancy in the classroom, including:
  - resources for development of curriculum for summer institutes and online classes to train teachers to introduce work-relevancy into coursework,
  - provide Professional Development Credits for teachers who participate in business-education programs,
  - develop business-education programs to provide teachers with first hand information and experience, and
  - provide incentives<sup>37</sup> and other support to encourage teachers to become "highly qualified teachers" in areas that will result in students prepared to fill occupations needed in the state.
- 3.3 Providing incentives<sup>38</sup> to teachers who can bring work-relevant learning opportunities to hard-to-fill positions in schools located in hard-to-fill areas.

#### Assessment System

The Working Group recommends that the project include an assessment system to thoroughly evaluate the cost and benefits of the proposed network, as well as existing publicly funded programs. To the extent existing programs already prepare assessments, that information can be incorporated and duplication would be unnecessary. This should also be integrated with the tracking system proposed in Recommendation #3.

This should be part of the system of financial incentives proposed in Recommendation #4.

This should be part of the system of financial incentives proposed in Recommendation #4. Findings and Recommendations

# Findings/Recommendations #7

# Conduct a Public Information Campaign

#### **Findings**

The development of Hawaii's economy over the past thirty years has resulted in a major change in the types of jobs currently available in the State. The shift from an economy focused on agriculture then to tourism and now one aspiring to knowledge intensive services — including professional, technical, scientific, and health services — has resulted in proportionately many more jobs that require education and training beyond high school. In addition, the continued adoption of new technologies in our legacy economy has heightened the level of skill and knowledge expected from incumbent workers.

This change in the type of work being done in the state has increased the potential supply of jobs that pay a self-sufficiency wage. Unfortunately, these jobs lack an adequate supply of qualified workers. The primary cause of the state's slow development of a highly skilled workforce is the shortage of young people developing relevant knowledge at an early enough age in STEM disciplines and basic writing/communications skills. Early competency in these areas prepares students to enroll and excel in the post-high school education and training programs essential for this kind of employment.

The attitudes and interests of young people, and consequently educational decisions, are shaped by their parents, peers, and significant adult role models. Unfortunately, the prevailing current opinion in the community described in the Winter 2006 edition of the People's Pulse, a poll commissioned by the Hawaii Business Roundtable and Pacific Resource Partnership, is that, "Half of residents (51%) feel that a college education is helpful but not a requirement in today's job market. This contrasts with 41% who view college as 'essential'." While there are many jobs in the state that do not require a baccalaureate degree or higher for entry, the vast majority of jobs that pay a self-sufficiency wage level require either long-term on-the-job training, or a post-secondary degree/certificate for an individual to be considered for employment. According to the most recent study of the issue by the Aloha United Way, a self-sufficiency level income for a family of four in 2005 ranged from a high of \$63,300 in Maui County to a low of \$53,900 in Hawaii County. In addition to technical skills, employers have expectations that their employees will have mastered basic academic skills comparable to college entry. Students, their parents, and others opinion leaders in the community need to become better informed about Hawaii's changing workplace expectations.

#### Recommendations

To address this situation, the Working Group recommends a public information campaign that may bring attention to this matter and positively influence change. The campaign could include the following.

- Design and deliver a social marketing campaign<sup>39</sup> that informs members of the community, particularly young people and their parents, about the growing number of jobs paying a self-sufficiency level wage or better and the education and training necessary to be employed in these jobs. This should include material designed to actively engage parents, businesses, and the community in the education process.
- Promote the engagement of our business community toward informing teachers and students about the developing opportunities in their industries and expectations for future employees.
  - Encourage employers (including government) to provide incentives for students to take a challenging high school curriculum, as demonstrated by earning a proposed revised BOE Recognition Diploma or industry certifications to communicate the importance of preparing academically for post-secondary options, including employment. Incentives may include: a proposed revised BOE Recognition Diploma or industry certification as a desired qualification for jobs, preference for participation in internships or other job-related experience for students earning a BOE Recognition Diploma or industry certification, and differential wages.
  - Encourage industry associations to serve as a clearinghouse for information between employers and educational agencies regarding industry expectations for prepared workers, and opportunities for teachers and students to participate in workplace experiences (e.g., internships, job shadowing, employment). Encourage industry associations to collaborate in identifying barriers to business' teachers' and students' participation in workplace experiences. This effort could be supported by a number of existing efforts, including the recently launched, DBEDT/UH-OTTED<sup>40</sup> program to establish an experiential learning framework among schools and business. This effort must be coordinated with the network of resources for connecting businesses and the education system proposed in Recommendation #6.

P-20, using GEAR UP and partners' funds, is planning a campaign to promote the message about a revised BOE Recognition Diploma being considered by the BOE. Career and College Readiness, beginning January 2009 (The People's Pulse question noted above is an indicator to track effectiveness of its public awareness campaign focused on college access). However, a more comprehensive campaign (more participation by agencies/organizations/businesses, more funds for more outreach, more incentives) would be more effective.

<sup>&</sup>lt;sup>40</sup> UH-OTTED is the UH Office of Technology Transfer and Economic Development. See http://www.mic.hawaii.edu/.