



Hawaii's Healthcare Industry Skill Panels

Initial Report and Addendum to
the Comprehensive
State Workforce Development Plan



February 2011



SPONSORED BY:



Photos Courtesy of: Stan Fichtman and Hawaii Pacific Health

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February 16, 2011

The Honorable Neil Abercrombie
Governor, State of Hawaii
Executive Chambers, State Capitol
Honolulu Hawaii 96813

Dear Governor Abercrombie:

I am pleased to submit the First Healthcare Industry Skill Panel Report for 2010, sponsored by the Department of Labor and Industrial Relations' (DLIR), Workforce Development Council (WDC), Career and Technical Education Center at the University of Hawaii, the Chamber of Commerce of Hawaii, and the University of Hawaii Community College System (UHCC). These initial findings and recommendations represent the work of over 150 stakeholders statewide from our health care community. The early success of these efforts is due to broad-based participation by employers, labor, educators, workforce development professionals, community-based and professional associations, and government agencies.

Hawaii is facing difficult economic times, and the healthcare industry continues to face significant labor shortages in occupations essential to the delivery of effective health care services. These shortages are not only in the urban hospitals that hire thousands of highly-skilled professionals, but are also in rural and isolated areas where community health centers are often the largest employer in the area.

The five Skill Panels, which address Nursing, Long Term Care, Technical Disciplines, Primary Care, and Workforce Readiness, met two times formally in late 2010 to address three goals. This Skill Panel Report contains the initial recommendations and action plans to address these goals:

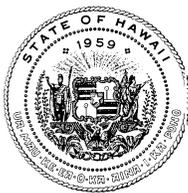
- Connect Hawaii residents to training, funding, and jobs to meet immediate healthcare industry labor needs in the next 12 to 18 months;
- Develop an action plan to meet long term labor needs for the healthcare industry; and
- Bridge the communication gap between employers and the University of Hawaii (UH).

This report will note that positive outcomes have already been produced. The communication gap between health care employers and the UHCC have been addressed through the formation of these panels. Additionally, the DLIR's WDC was awarded a one-year \$150,000 State Health Care Workforce Planning grant based upon the concept and work of the panels as part of the Affordable Care Act of 2010. Successful completion of this planning grant is expected to lead to additional federal dollars for implementation.

We look forward to your review and feedback.

Regards,

DWIGHT TAKAMINE
Director



**STATE OF HAWAII
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February 16, 2011

Aloha Hawaii's Healthcare Industry Stakeholders:

The process of planning and launching Hawaii's first Healthcare Industry Skill Panels have been intensive and interesting. The Workforce Development Council (WDC) has worked the past several years towards transitioning to a sector based approach to strategic planning. The industry skill panel approach adopted by WDC, has allowed the council to develop a robust program based on national best practice models. This initiative took a great deal of effort from many people. As such, the WDC recognizes the following people and their contributions:

- The over 150 Skill Panel members who contributed their time and expertise to the effort, including neighbor island participants;
- The co-chairs and facilitators spent many hours planning their sessions and preparing reports; and
- Mike Brennan from the Workforce and Training Board in Washington State, and Ed Morrison from the Purdue Center for Regional Development in Indiana worked with our groups and gave context to our ideas and aspirations.

As you will discover in this initial report, Skill Panel members have already developed a number of "quick wins" from the October and November meetings. Many members reported that this initiative has provided an opportunity to discuss issues with a diverse group of stakeholders, including healthcare employers, secondary and postsecondary educators, the workforce development system, economic development, professional and trade associations, community-based organizations and labor organizations.

The work has not ended for the five Skill Panels. The stakeholders will continue to address specific issues that have been identified, and will continue this work through 2011 and beyond. This Report highlights progress to date and plans for ongoing initiatives. As members of the WDC's Skill Panel Planning Committee, we reiterate our appreciation to all who contributed.

Respectfully,

Carl Hinson (Co-chair), Director of Workforce Development, Hawaii Pacific Health

Signe Godgrey (Co-chair), President, Olsten Staffing Services

Allen Chung, President, C Three Consulting

Angela Meixell, Interim State Director for Career and Technical Education, University of Hawaii

James Tollefson, President, The Chamber of Commerce of Hawaii

James Wataru, State Director, United Public Workers

JoAnn Inamasu, Economic Development Specialist, County of Maui

Dr. Kelley Withy, Professor, University of Hawaii John A. Burns School of Medicine

Nani Medeiros, Policy & Public Affairs Director, Hawaii Primary Care Association

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EXECUTIVE SUMMARY

The healthcare workforce in Hawaii has reached "critical condition." The State has major industry barriers, including: lack of local training available for specialized occupations, lack of specific labor market information, a high cost of living and transportation that inhibits training (especially on neighbor islands), and rural and isolated areas with limited access to healthcare and high health disparities among certain populations. When comparing to average US healthcare utilization rates, these and other barriers, have led to an estimated 20% lack of primary care providers in the State, as well as shortages in many other healthcare occupations.

In an effort to address this gap in healthcare services and healthcare workforce opportunities for Hawaii residents, the Workforce Development Council formed industry-specific Skill Panels in Nursing, Long-term Care, Primary Care and Technical Disciplines, where over 150 participants contributed their time and expertise. These groups have proven to be an ingenious promising practice in which a diverse group of stakeholders collaborate toward desired outcomes. Designed to be action-oriented, there have been a number of "quick wins" from the October and November sessions, including:

- Development of an innovative RN program for final year nursing students, aimed at reducing the bottleneck and allowing more new RNs to enter high needs fields;
- Deployment of a comprehensive survey to hospitals that will identify advanced practice RN needs based on specialty vacancies and anticipated retirement rates for the coming years;
- Formation of a new panel to address specific workforce readiness solutions for healthcare employers (created after the topic emerged as a major issue in the October Panel); and
- Development of a local training program by an employer-educator team, for a high needs specialty currently unavailable in the state.

Using best practice models and experiences, these Skill Panels will continue collaborating to improve Hawaii's healthcare labor pool by discussing current issues and planning innovative solutions.



WORKFORCE DEVELOPMENT COUNCIL

The Hawaii Workforce Development Council (WDC) is comprised of private and public-sector members appointed by the Governor. The 31 members are committed to providing direction to the State's workforce development efforts, and supporting and encouraging the best use of resources for those purposes.

The WDC is mandated by State law to develop and annually update information on workforce development for the Governor and the Legislature. Each year, the WDC presents workforce issues and recommendations in its *Comprehensive State Plan for Workforce Development*.

During 2008-2009, WDC members and other stakeholders revisited the role, mission, and vision of the WDC, outlined the state's planning context using previous reports and studies, assessed how the State compares with the rest of the nation, and established goals and priorities for 2009-2014. Based on an evaluation of current state programs and resource requirements, the group identified the following four major priority areas:

1. Improve the delivery of timely education and training to prepare current and future workers for projected high-demand occupations;
2. Focus more attention on upgrading the skills of incumbent workers;
3. Expand the labor pool in the face of anticipated long-term shortages; and
4. Address workforce housing.

According to a number of sources, healthcare has had the highest number of workforce shortages in a range of occupations. **Following best practices in other states, the WDC began implementing a sector strategies approach to workforce development planning known as Industry Skill Panels.**

INDUSTRY SKILL PANELS

Industry Skill Panels are private/public partnerships working to ensure employees in key industries have the skills needed to meet the changing needs of businesses quickly and competently. These Panels harness the expertise of leaders in business, labor, education, economic development, and other sectors, to identify workforce development strategies while closing skill gaps in a specific industry. Industries using Skill Panels have included healthcare, construction, agriculture and food processing, information technology, electronics, energy, transportation, aerospace, and advanced manufacturing.

Skill Panel leaders build consensus, prioritize their local and regional industry workforce needs, and are better able to mobilize partners and leverage resources to make the greatest impact.

Additionally, their mutual efforts are more influential with government, businesses, associations, and educational institutions, than trying to fill workforce needs alone within silos.

The success of these efforts is largely due to the leadership role undertaken by, and collaboration between, the University of Hawaii, the UH Community College System Office, and the participating employers and labor organizations.

An anatomy of industry Skill Panels is presented below.

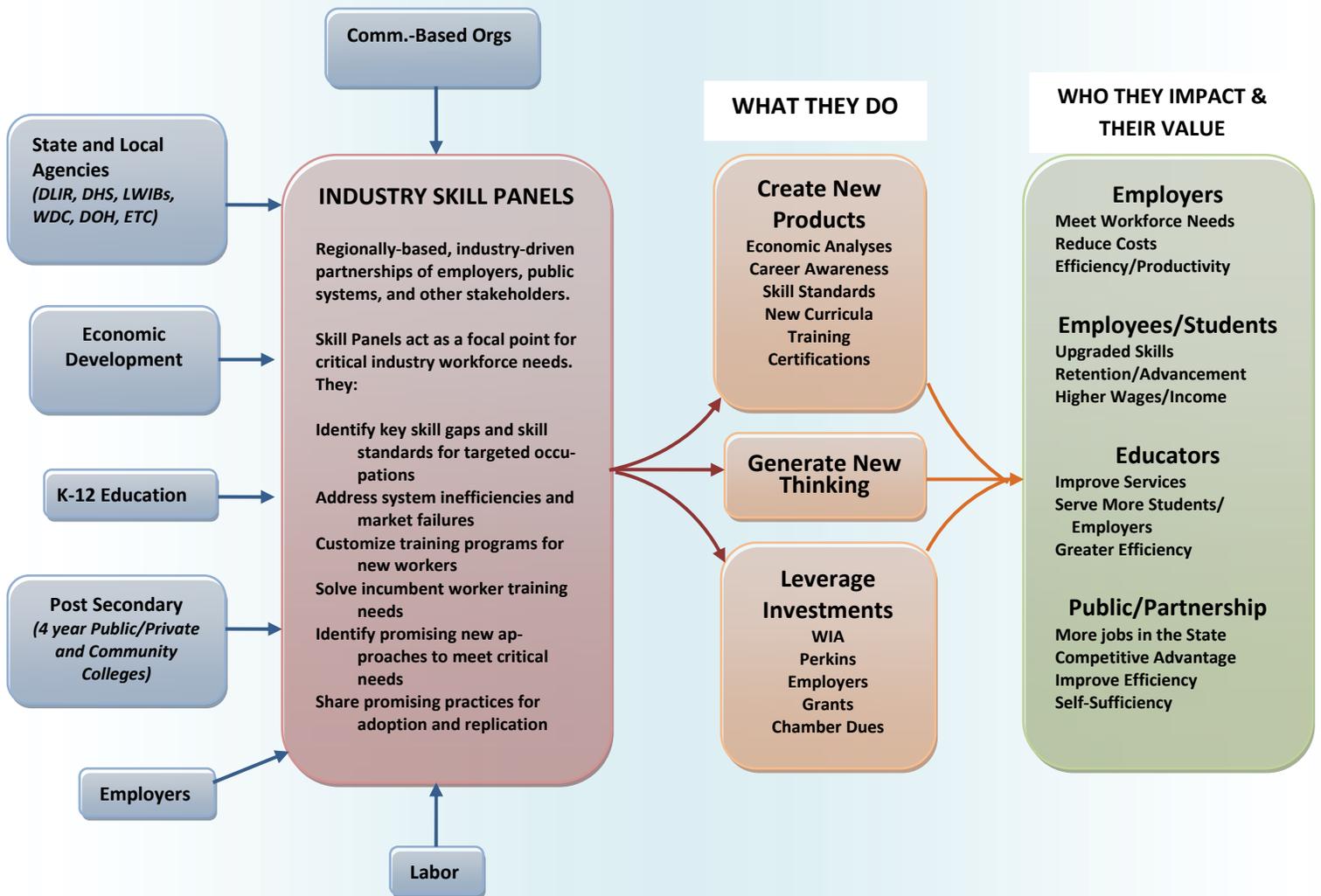


Figure 1: Anatomy of Industry Skill Panel
 (Source: Evaluating Industry Skill Panels: A Model Framework, June 2008. Washington State.)

HOW INDUSTRY SKILL PANELS MAKE A DIFFERENCE

"Through the Skill Panel process, healthcare employers and educators are communicating in unprecedented ways. These collaborations are already resulting in initiatives that will improve healthcare in the State of Hawaii."

-Carl Hinson, Director of Workforce Development, Hawaii Pacific Health

Skill Panels bring competitors of a specific industry together to collaborate in addressing critical issues, skill gaps, training needs, and setting and monitoring performance outcomes. As a pioneer in developing Industry Skill Panels, Washington State adopted this framework in 2000, and in the past decade Panels have expanded both geographically and within industries.

Examples of skill panel success in other state's include:

- The vacancy rate of Invasive Cardiovascular Technicians was reduced by 100% between 2003 and 2007.
- An independent evaluation of four Skill Panels found that the initiatives leveraged over \$18 million in additional investments - more than 30 times the public funds invested.
- The Panels have demonstrated effectiveness in decreasing skills gaps and vacancy rates in over 40 Skill Panels launched by Washington State since 2000.



IMPORTANCE TO HAWAII

Like many other states, the State of Hawaii is threatened by a lack of skilled workers in the healthcare industry. According to the Hawaii State Center for Nursing and the Hawaii/Pacific Basin Area Health Education Center at the University of Hawaii's John A. Burns School of Medicine, current projections show the state could be short 1,230 doctors and 2,669 registered nurses to care for an estimated 280,496 baby boomers who will be 65 or older by 2020.

These shortages will worsen in the following decade.

Given the high percentage of older residents, who generally use medical care more than other age groups, this insufficient number of physicians, nurses, and other healthcare professionals will have serious repercussions.

The Industry Skill Panel initiative in Hawaii was launched in 2010 and funded by the WDC and the University of Hawaii - Center for Career and Technical Education. These initiatives are geared toward developing strategies to provide:

- Workers with better skills, jobs and career opportunities;
- Employers with greater efficiency and less turnover;
- Educators with information about current skill requirements; and
- Public agencies with data on employers' skill needs.

Skill Panels are not designed to be short-term in nature. These Panels will continuously meet to address issues to meet labor needs. Initially, these Panels will be continued in part by a \$150,000 federal grant to develop a Comprehensive State Workforce Development Plan for the healthcare industry in Hawaii.

HEALTHCARE IN HAWAII

Hawaii has eight not-for-profit hospitals with satellite clinics, three for-profit hospitals, and a for-profit 5-facility long-term care system. The State has the fourth largest U.S. public hospital system with 13 facilities on five islands, as well as 14 Federally Qualified Community Health Centers on six islands that served 124,000 patients in 2009, or nearly 10% of the state's population.

Due to the isolation of the neighbor islands, most of the State is considered to be Medically Underserved or is labeled as a Health Professions Shortage Area by the US Department of Health and Human Services.

Labor Market Information (LMI) is produced for healthcare occupations in standard occupational category codes. However, during the formation of the Healthcare Advisory Group by the WDC, it was observed that there are limitations to current LMI data that do not always capture information addressing various occupation types or levels needed in workforce planning. For instance, current LMI for Hawaii shows a need for 320 registered nurses per year. This number does not include breakouts of specialty categories needed by employers and jobseekers. The majority of hospital employers on our Panels noted that their labor needs for RN positions were for specialty RNs (i.e. ER, ICU and peri-operative). On the contrary, Hawaii postsecondary schools graduate over 600 new RNs each year, while the maximum number of yearly RN positions available for new graduates is only 150. The remaining need is for

more experienced, specialty trained RNs. Finally, current LMI also does not show labor projections by county or island.

A number of organizations have investigated the shortages in healthcare occupations—this is not only a Hawaii problem, but is also experienced nationwide, and in some cases is a world-wide trend. Some of the efforts to identify healthcare workforce shortages in Hawaii include:

| Agency/Program | Population Addressed |
|---|--|
| Hawaii-Pacific Basin AHEC | Statewide inventory identifying physician shortages by specialty, as well as other healthcare workforce activities. |
| Hawaii County Healthcare Alliance | Hawaii County, addressing primary and specialty care shortages. |
| University of Hawaii has several grants to develop curriculum capacity for healthcare occupations | Oahu initially. Plans must be developed to increase capacity on neighbor island campuses. |
| Long-Term Care Commission Long-Term Care Financing Study | Long-term care population and older residents – recommendations for financing options. |
| Hawaii State Center for Nursing | A broad group of appointees representing employers, labor, and academia, working on plans to address the nursing shortage. |

With all of these resources, however, Hawaii does not have a centralized employer and labor-driven process that also includes stakeholders from different sectors.

SKILL PANELS IN HAWAII

Following Washington State’s experience, the WDC approved the use of strategic planning funds in order to launch five Skill Panels in the healthcare areas of Nursing, Long-Term Care, Technical Disciplines, Primary Care, and Workforce Readiness. Additional sponsors include the Office of Career and Technical Education, the Department of Labor and Industrial Relations, and the Chamber of Commerce of Hawaii.

Members for the Panels were solicited using best practice models that require representation from employers, educators, community-based organizations, economic development boards and organizations, labor organizations, and the workforce development system (Local Workforce Investment Boards and One-Stop Centers). Additional members were sought from professional and trade associations, and government agencies such as the Department of Business, Economic Development, and Tourism. Comprehensive Skill Panel membership lists are included later in this document.

To provide members time to develop action plans between meetings, Skill Panels were launched on October 5th and November 9th, 2010. Resources from the WDC and other agencies allowed for over 40 members from neighbor island counties to participate in the meetings.

Prior to the Skill Panel sessions, The WDC and CTE sponsored a "Strategic Doing" full-day session with Ed Morrison from the Purdue University Center for Regional Development for key personnel and facilitators. Strategic Doing is an action-oriented process that was used to prepare Skill Panel co-chairs, facilitators and other interested persons for the work to be done in the Skill Panels. In this method, Strategic Doing begins with desired outcomes and uses an accelerated process to develop action plans based on common goals.

For the Skill Panels, the WDC and CTE brought Mike Brennan, an economic development specialist at the Workforce and Training Board in Washington State, to assist in planning the meetings and facilitate the formation and first steps of the Panels. His experiences and the successes in his state helped to provide a context for the dialogues, beginning with the employer point of view. As Mr. Brennan noted, "all the other members are paid to be here, while the employers are paying to participate."

EARLY RESULTS OF THE OCTOBER AND NOVEMBER MEETINGS

The agenda for October 5th and materials presented included a primer on the Skill Panel process and desired outcomes, funding streams from federal sources, and LMI short and long term projections of retirements and vacancies.

The emphasis at the beginning of each Panel was to allow employers to share their concerns and issues. Each Panel developed its own method of developing the issues and identifying recommendations and solutions. Many of the recommendations were universal, and fell into all Panels.

A major feature of Skill Panels is the ability to immediately bring disparate groups together to solve problems. There are often early results from these interactions, called "Quick Wins." The Hawaii Panel experience also introduced several initiatives that have generated immediate results.



“Quick Wins” from the Skill Panels included the following:

- Participation by neighbor island members helped to bridge the communication gap between and within education and employers, and ensured that the discussion and outcomes were not “Oahu-centric”;
- Employers and Kapiolani Community College (KCC) educators formed a group to immediately address the shortage of diagnostic medical sonographers at Oahu hospitals. KCC last offered the course four years ago, and due to the cost did not continue the program. The partnership will address not only basic sonography (ultrasound), but also several specialty areas that are in high demand;
- The four original Skill Panels all identified workforce readiness as a major issue regardless of education level. A fifth Panel for Workforce Readiness was formed and has been developing ways to partner with educators (to include appropriate curriculum and information) and the workforce development system (to use testing approved by health-care employers);
- The Nursing Skill Panel is currently conducting a hospital-based survey to identify vacancy rates for specialty positions and estimated RN shortages for the next decade. The survey began to obtain data regarding vacancy rates and shortages, but needs to continue in order to complete the data collection. At time of publication, eleven (11) hospitals had responded. The Nursing Skill Panel is also planning to undertake a critical care pilot program identifying the potential cost savings of developing common curriculum requirements, which would ensure all similar trainings produce critical care nurses with comparable knowledge and experience; and
- A hospital nursing consortium, consisting of employers, Hawaii Center for Nursing, and educators from the University of Hawaii School of Nursing and Dental Hygiene, Maui Community College, Kauai Community College, and Hawaii Pacific University are developing a pilot program to train final year RN students in specialty areas to reduce the time required in acute care before moving into specialty slots, which are a major shortage in the State. The goal is to “fast-track” local residents into higher-paying specialty positions and reduce costs for employers who hire from the mainland US and globally.



PRIMARY CARE SKILL PANEL



WORKFORCEDEVELOPMENT
COUNCIL

Primary Care Skill Panel Members

Nani Medeiros (Co-chair)

Policy & Public Affairs Director,
Hawaii Primary Care Association

Kelley Withy (Co-chair)

Director, Hawaii/Pacific Basin/I AHEC,
UH-John A. Burns School of Medicine

Jeri Arucan

Researcher, DLIR-Research and Statistics

Andy Levin

Patient Ombudsman, Beacon Grant Project

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Ric Custodio

Medical Director, Waianae CCHC

Sherry Menor-McNamara

Vice President, Business Advocacy & Government Affairs,
Chamber of Commerce of Hawaii

Dan Domizio

Clinical Programs Director,
Puna Community Medical Center

Fielding Mercer

President, Hawaii Academy of Physicians Assistants

Loretta Fuddy

Chief, Family Health Services, Department of Health

Nicole Moore

Director, Hawaii County AHEC

Beth Giesting

CEO, Hawaii Primary Care Association

Boyd Murayama

Assistant Hospital Administrator,
Hilo Medical Center

Henry Gomes

Director, Native Hawaiian Partnerships,
Chaminade University

Mary Navarro

Kauai Supervisor, Catholic Charities Kauai Office

Blayne Hanagami

One-Stop Manager, Hawaii County One-Stops

Melonie Ogata

Researcher, DLIR-Research and Statistics

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Employment Analyst

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Sherilyn Lau

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Mona Takara

Clinic Director,
Queen's Development Corporation

James "Kimo" Lee

Director of Development, W.H. Shipman, Ltd.



The **Primary Care Skill Panel** drew members from community health centers, hospitals and clinics, educators, social service and other community-based organizations, and professional associations. During the morning session of the October 5th Panel, members identified approximately 25 areas of focus which were condensed into 12 categories: life skills training, regulatory barriers, dental, primary care providers, behavioral health providers, cultural competencies, administrative and support staff, technical disciplines, researchers, physical therapists and ultrasound technicians. Employers were asked to prioritize the twelve categories to identify the most important issues to them. The identified issues were: **administrative/leadership, regulatory barriers, primary care, health IT, and work readiness.**

Problem Statements:

1. Hawaii experiences shortages for training of administrative and managerial personnel in healthcare, including the lack of a career ladder for these employees to advance professionally. Lack of training affects operations from first-time supervisors (including clinical positions) through more senior positions;
2. There are regulatory barriers (certification/licensure/credentialing) contributing to the healthcare workforce shortage in Hawaii that must be reviewed and addressed. Barriers include licensure and credentialing requirements that inhibit the ability to hire personnel from other states and countries in a number of professions;
3. There is a shortage of primary care providers (PCP) in Hawaii. In this context, PCPs are defined as Medical Doctors, Doctors of Osteopathy, Nurse Practitioners and Physician Assistants. However, the Panel members stated that Primary Care is a team effort including as many as 25 different occupations that are critical to the care of patients;



4. There is a lack of awareness, understanding, training, and utilization of Health Information Technology (IT) and health IT occupations. Members noted that Health IT varies between community-based care (such as in community health centers, and individual physician's offices and clinics), and hospitals and medical centers; and
5. People entering the workforce in Hawaii have a lack of work readiness skills including communication skills, writing skills, personal hygiene and presentation, timeliness, and general business practice comprehension. This issue arose in every Skill Panel on October 5th, compelling a separate Panel to be held on November 9th in order to address the issue.



Recommendations:

1. Inventory leadership and management training programs, and define career paths for administrative personnel. Identify programs and possible funding sources by pooling resources from employers, educators, the public workforce system, and community-based organizations.

Actions:

- Inventory existing programs in education and within healthcare organizations;
- Survey employers to develop group training that reduces costs for individual employers;
- Identify sources that can be adapted for use, such as the Nurse Leadership sessions developed by the Hawaii Center for Nursing; and
- Identify gaps in training and develop an action plan that includes contacting local stakeholders (such as the Shidler School of Business) and noting potential sources of funding for training.

2. Identify regulatory and other barriers, and create a legislative package that offers action steps to increase the availability of skilled workers for healthcare.

Actions:

- Generate a list of regulatory and other barriers, and prioritize related to the importance of increasing the supply of healthcare openings;
- Prepare legislative packages for the 2012 and 2013 sessions that reduce or eliminate these barriers and identify constituencies able to testify on behalf of the measures; and
- Follow through with legislation that has passed, yet has not been implemented (such as licensing of dental hygienists through the Department of Commerce and Consumer Affairs).

3. Mitigate the shortages of primary care providers in Hawaii.

Actions:

- Identify shortages for each occupation, including sub-specialties. Information should include vacancy information for 2010 and anticipated for 2011, and estimated shortages for each category in 2011, 2012, and 2013-2016. Survey both hospitals and community-based care, as skills and requirements may be different;
- Develop recruitment and retention strategies for PCPs, nurses and other shortage occupations; and
- Seek funding to enact the recruitment and retention strategies.

Occupations in Primary Care

- Primary Care Providers (internal medicine, family and general medicine, gerontologists, pediatrics)
- Certified Nurse Assistants and Medical Assistants
- Dental (dentists, periodontists, dental hygienists)
- Care Coordination Workers (social workers, community case managers)
- Nurses (RN, APRN) and Nurse Managers
- Physical Therapists
- Ultrasound Technicians
- Behavioral Health Workers (psychiatrists, psychologists, substance abuse counselors, social workers)
- Pharmacists and Pharmacy Technicians
- Community Health Workers and Educators
- Others positions related to primary care

LONG-TERM CARE SKILL PANEL



WORKFORCEDEVELOPMENT
COUNCIL

Long-Term Care Skill Panel Members

Nina Enomoto (Co-Chair)

Coordinator for External Affairs
UH Center for Career and Technical Education

Kurt Akamine

Kauai Administrator, Ohana Pacific

Charlene Akina

PERS Enrichment Program,
Leeward Community College

Coral Andrews

Vice President, Healthcare Association of Hawaii

Mimi Andrian

Human Resources Director, Arcadia Retirement Residence

Linda Belisle

Nursing, Leeward Community College

Guy Benjamin

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Jamie Boyd

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Ann Boyd

Director of Workforce Development,
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Allen Chung

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Rosanna Evers

Director of Social Services,
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Sue Feltz

VITEC, Maui College

Bill Grier

Manager, Kauai County One-Stop (DLIR-WDD)

Toni Hathaway

Kupuna Education Center, Kapiolani Community College

Gail Okamura (Co-chair)

Oahu Region Education Director
Hawaii Health Systems Corporation

Tony Kreig

President/CEO, Hale Makua

Gary Johnson

Chief of Gerontology,
Hawaii Pacific Health

Keri Kajiya

Employment Consultant, Oahu WorkLinks

Catherine Kawamura

Healthcare Pathways, Department of Education

Vicki Lau

LMI Specialist, DLIR-Research and Statistics

Steven Lee

Business Development Manager, DBEDT

Tricia Malloy

Program Specialist,
DLIR-WDD (ETF Fund)

Shawn Medeiros

Care Resources Hawaii-Queen's Medical Center

Cindy Meiers

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WIA Administrator, Kauai County

Jill Yegian

Director of Programs, Hawaii Community Foundation

Ryan Okunaga

Human Resources Manager,
Pearl City Nursing Home

Nadine Smith

COO, Ohana Pacific

Paulette Wage

Human Resources, McDonald's

Jessica Yamamoto

Director, HIWEDO

In addition to traditional nursing home patients, **Long-Term Care (LTC)** is now seeing an increasing number of post-acute care patients, who are not sick enough to stay in a hospital but are too sick to return home. This is an additional burden on the LTC system.

The issue of LTC is becoming a crisis of epidemic proportions in Hawaii due to demographics and the issue of financing care in facilities that are already overwhelmed with the patient load.



The State faces a declining birth rate and a large increase in the number of older residents. This is a situation requiring more investment in LTC services in a state with a higher-than-average Medicaid population. In 2008, the State implemented Managed Care for LTC, requiring an increase for home and community-based workers. This change also requires workers in facilities to upgrade skills to care for a higher percentage of patients with more complex health problems. This situation requires rethinking training priorities and further capacity building efforts among neighbor island counties for this rapidly expanding sector.

After an initial listing of issues, the LTC Skill Panel members determined that three sub-groups would meet to further expand the issues and identify action steps.

There were three focus areas formed with specific tasks in each sub-group:

- Identify the skill sets by occupation, and identify private/public partnerships to increase specialized training in LTC;
- Encourage better collaboration between stakeholders, and curriculum development including just-in-time training; and
- Increase understanding of the importance of LTC as a profession.

Problem Statements:

1. LTC patient profiles have become much more complex, making it essential for professional staff to receive continuous learning in a variety of modalities (such as just-in-time training, face-to-face, distance learning, etc.) in order to enhance skill sets and keep up with changing technologies;
2. LTC is not attractive as a career option to sufficient numbers of students and workers;
3. Specialized LTC management and leadership training is lacking; and
4. Severe LTC workforce shortages exist particularly for occupations such as physical therapists and occupational therapists, for which there is no local training programs, and for speech therapists, for which the existing local program does not produce enough graduates to meet demand.

Desired Outcomes:

1. Develop a short-term plan to address skill gaps in LTC;
2. Develop a well-defined process to upgrade the skill sets of the LTC workforce to meet changing and increasing patient care requirements, employer needs, and patient family and community expectations;
3. Improve community awareness of LTC as a thriving industry and employer of choice; and
4. Gather data on local students pursuing degrees in shortage categories at mainland colleges to determine how many plan to return to Hawaii and why, in order to develop an effective recruitment strategy that results in the majority returning to Hawaii to pursue their careers.

Occupations in Long-Term Care

- Physicians
- RNs
- LPNs
- Nurse Aids
- Pre-CNA Positions
- Case Managers
- Social Workers
- Psychiatric Aides
- Patient Care Techs



Recommendations:

1. Identify skill set gaps for Long-Term Care occupations, and determine the need for specialized training to fill the gaps;
2. Make changes in regulations to enable instructors without current level of required hours in LTC to teach basic skills for specialized training;
3. Establish industry-recognized credential for pre-CNA positions leading to a career pathway in LTC. Credentialing will allow WIA and other training funds to be used, and will enable low-skilled workers an entry-level job while they improve their skills;
4. Create marketing campaigns for targeting high schools, One-Stop Centers, community colleges and the general public to increase awareness about LTC careers and the opportunities that can lead to living-wage positions in a growing field; and
5. Create focus on staff retention since it is difficult to recruit workers to the LTC field. Also, work with employers and unions to identify ways to retain older workers (such as providing part-time work so they will be able to work long term), and identify incentives such as the creation of well-defined career pathways for LTC workers.



NURSING SKILL PANEL



WORKFORCEDEVELOPMENT
COUNCIL

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Dana Westphalen

Home Health Manager, Kaiser Permanente

After an initial discussion of nursing issues, it was determined that hospital-based Registered Nurses would be the focus of the Skill Panel. The lack of specialty nursing and the impending retirement of up to 1,000 nurses in the coming decade make this issue one of the most critical in Hawaii's healthcare workforce.

Problem Statements:

1. There are not enough specialty RNs in Hawaii's hospitals, in part due to lack of locally available training;
2. As a result, hospitals must use temporary helps (traveling nurses) at a greater expense and for a limited amount of time;
3. For permanent specialty nurses, hospitals must recruit on the mainland US and internationally, also adding to personnel cost;
4. As a result of the bottleneck in moving to specialty nursing, new RNs often can not find RN jobs in hospitals. The options include taking positions such as ward clerks, CNAs, and medical assistants awaiting an RN position opening, work in an area not of their choice, or move to another state to get acute care experience; and
5. Available labor market information does not provide information concerning specialty RNs nor RNs by county or island.



Recommendations:

1. Survey hospitals to identify anticipated vacancies, retirements, and shortages for each of the major RN specialties and develop funding mechanisms to close the specialty RN gaps;

Actions:

- Deploy a survey requesting the information (*an initial survey has been taken*);
- Prepare information for policy makers to emphasize the need for specialty training for hospital-based RNs;
- Provide information to educational institutions and request funding for positions to provide training to hospitals; and
- Identify funding for hospital-based training programs.

2. Create programs within hospitals to make medical-surgical positions available to new RNs with on-the-job training in the clinical setting;
3. Share information on Skill Panel activities with appropriate labor organizations to invite their participation in designing new pathways for RNs;
4. Gather a separate task force of educators to create a critical care pilot program focused on developing common curriculum components, and then identify concrete figures of how similar training programs could leverage resources and save costs in other specialty areas. With the final figures from the pilot program, stakeholders will be able to choose whether to implement the procedure on a larger scale, and begin seeking avenues for funding; and
5. Develop “Academies” at educational institutions or employer hospitals to:
 - Use the HPH model for training of specialty nurses offered twice per year, with didactic, online, simulation, preceptor-clinical, testing;
 - Offer CEUs for participation;
 - Investigate use of Tripler AMC modules on specialized RN training; and
 - Include Kapiolani Community College’s Nursing Department Bridge Series on Nursing Leadership.



TECHNICAL DISCIPLINES SKILL PANEL



WORKFORCEDEVELOPMENT

COUNCIL

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The lack of technical awareness and expertise in the healthcare industry is an eminent problem that needs to be addressed for the State of Hawaii. The Technical Disciplines Panel members articulated the following problem statements and recommendations.

Problem Statements:

1. There is a lack of career awareness in high schools. The Panel members noted that a statewide cross-organizational “Health Careers Exploration” program is needed—starting in grade school—that orients students to health related careers. They also agreed that there is a need to define and widely disseminate clear K-16+ health careers pathways;
2. There is a need to fill in immediate shortages in areas, such as IT Medical Informatics, Coders, Physical Therapy, Occupational Therapy, Radiologic Technician, Sonography/ Echocardiography, Surgical Technician, and Medical Laboratorian;
3. Graduates are not “work ready” with a balance of sufficient technical and soft skills. Members of the Panel noted that the new graduates often lack people skills and sometimes older workers lack adequate technical skills to compete;



4. There is a lack of an accurate, timely, and broadly accessible (e.g. web-based) job demand forecasting system. This technology is necessary to track job openings in healthcare and to improve planning for meeting healthcare workforce needs;
5. There is a lack of specialty training (such as cardiac sonography) and training for new technologies (the most up-to-date digital technologies) in Hawaii;
6. There is a need for better communication between employers and educational institutions. The Panel members agreed that employers and educational organizations need to share information on types of job requirements and skills needed in the healthcare industry;
7. There is a lack of training capacity for incumbent employees and prospective students, especially in the neighbor islands where residents often relocate away from their communities to acquire or advance their skills; and
8. There is a need for a comprehensive clearinghouse system to support productive and efficient job internships.

Recommendations:

1. Clearly define current and future job competencies and skill sets required;
2. Determine what curriculum and certification programs exist that are “ready to go” to meet needs in the next 12-18 months;
3. Commit resources to develop and expand apprenticeship/internship and skills gap training programs;
4. Develop partnerships to develop basic and advanced Diagnostic Medical Sonography classes to meet needs in 2011 and 2012;
5. Support the electronic medical records initiative;
6. Develop and regularly convene a subgroup of the Skill Panel to provide leadership and form the agenda for the larger group (primarily employers and educators);
7. Facilitate industry and education discussions to change and streamline curricula for job training;

Actions:

- Add knowledge and competencies that are missing, and remove redundancies and outdated material (E.g., molecular microbiology) from curriculum;
 - Identify gaps in education and use of technology; target sources of funding to use off-site clinical settings and purchase current equipment and resources used in employer settings;
 - Determine where courses and programs are needed and offer or continue distance learning academic components where feasible; and
 - Invite educators to seminars regarding new technologies and procedures offered in Hawaii in order to keep them abreast of new developments (high school and post-secondary levels).
8. Hire more quality clinical educators who can teach well and work in the real world environment. Reduce reliance on working professionals, unless their job has been restructured, to allow participation in clinical training;

Actions:

- Perform a more detailed survey of employers to determine needs for clinical education, with added focus on the neighbor islands; and
- Pursue funding for clinical education through federal, state, employer, and other private sources, including private grants.



9. Develop web-based data collection systems;

Actions:

- Structure the survey process so that the response rate and timeliness in responding to DLIR surveys improves; and
- Determine whether the supply of graduates meets the demand for entry-level workers.

10. Develop partnerships to train workers where only small numbers of workers are needed;

Actions:

- Convene educators to determine which campuses can offer training, or identify out of state resources that need to be contacted; and
- Identify funding sources from among public workforce agencies, education, and employer resources.

Allied Health Occupations

- Physical Therapist
- Physical Therapist Assistant
- Occupational Therapist
- OT Assistant
- Surgical Technician
- Radiology Technician
- Diagnostic Medical Sonography
- Medical Laboratory Technician
- Patient Care Technician
- Medical Assistant
- Radiologic Technologist
- Respiratory Therapist
- Dental Assistant
- Dental Hygienist
- Pharmacy Technician
- Specialty Sonography
- Medical Technologist
- Licensed Clinical Microbiologist

11. Define common skill sets that transfer across occupations;

Actions:

- Convene educators and employers to identify common skill sets across allied health fields. Investigate the “academy” approach that can be used for program pre-requisites such as the basic coursework in sciences and clinical applications;
- Conduct a pilot in one community college—investigate if CTE funding will be available to fund the pilot;
- Evaluate the success of the academy approach, and replicate throughout the

UHCC system, building capacity in areas where training is needed; and

- Break the healthcare careers information bottleneck and expand information resources. Commit resources to develop and staff a statewide Health careers information clearinghouse that coordinates PR and marketing of health careers, career exploration, job shadowing, internships, career placement, and Career Days.

12. Create career pathways for Occupational Therapists, Physical Therapists, and other allied health careers.

Actions:

- Develop clear-cut health careers Pathways brochures that are widely understood and provide meaningful information to stakeholders and prospective workers;
- Improve reach and quality of guidance counseling for students interested in Health careers, and provide clear Healthcare job descriptions to students early in their career planning process;
- Expand “Ambassadors” mentoring program, where UH faculty mentor middle and high school students in Health careers disciplines;
- Combine Science Fair activities with Health careers exploration activities.— currently life sciences is underrepresented in the STEM programs;
- Researching and clarifying legal and supervisory issues for internships needs to be funded; and
- Job market projection system that informs about planning for job internships and internship placements needs to be funded.

13. Survey neighbor island training needs; and

Actions:

- Funding is needed for curriculum development, equipment, student support in terms of coordination and counseling support, tuition and fees, faculty cost (salary, airfare, housing), and rental space funding for island campuses; and
- Identify US DOE, US DOL, US DHHS and other sources of grants and private funding that can be utilized to meet the needs articulated.

14. For health informatics, funding is needed to create support services for physician offices while they transition to EMR.

Actions:

- KCC has a program that is promoting training for private offices and clinics beginning in 2011; and
- Investigate use of Employment and Training Fund (DLIR) to match employer contributions to this type of training.

WORKFORCE READINESS SKILL PANEL



WORKFORCEDEVELOPMENT
COUNCIL

Workforce Readiness Skill Panel Members

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During the first Skill Panel session on October 5th, employers from all four Panels identified “workforce readiness” as a major concern. *It was noted that work readiness was an issue for workers regardless of education level.* Further discussions led to the conclusion that the issue warranted the creation of an additional Panel. During the November 9th session, members from all four previous Panels created a fifth Panel on Workforce Readiness.



All entrants into healthcare professions need appropriate workforce readiness skills. Panel members identified specific groups that might need specialized curriculum or approaches, such as those in rural communities and other underserved populations such as people from different cultural groups, single parents, those re-entering the workforce after an absence, current college and high school students, older workers, foster children aging out and other adolescents, and the unemployed. It was also recognized that current employees and educators also need to be aware of these skill requirements on an ongoing basis.

The Workforce Readiness Skill Panel will explore options and make recommendations for a statewide, comprehensive workforce readiness project that is considered useful by health-care employers, educators, and the public workforce system.

Identified Gaps in Workforce Readiness:

A number of gaps were identified by employers, and fell into the following categories:

- Communications, such as customer service orientation, ability to work with cultural differences and work patterns, and accepting constructive criticism in the evaluation process;
- Leadership and Teamwork, such as team-building ability and management competencies, from front line supervisors to the CEO;
- Behavioral characteristics such as emotional intelligence and problem-solving;
- Lack of knowledge about the world of work;
- Technical abilities, such as technology usage by older workers, and increasingly, a high comfort level with using Electronic Medical Records (EMR) technologies; and
- Other desired skills - understanding and applying confidentiality in practice, and understanding and applying health and safety laws and organizational policies.

Recommendations:

The Skill Panel members discussed ways in which employers, education, and other constituencies could work together and combine resources in order to bridge the identified gaps.

1. Evaluate existing programs to determine what currently works and what does not work. Identify programs including consultants, the MASH program, Options in Healthcare and summer internships (both operated by the Department of Education), and the Hawaii Community Foundation. Some community colleges have work readiness testing and/or curriculum. The Oahu Workforce Investment Board launched a testing-only program during 2010 using resources from WorkKeys and Accuvision;

Actions:

- Evaluate programs and meet in a multi-agency team to make decisions on which program will meet the needs of healthcare employers. Assign teams to make adjustments to meet the needs of Hawaii, such as cultural competencies; and
- Identify funding through alternative sources due to declining state and federal funds.



2. Examine changes which are specifically employer-sponsored work readiness credentials; and

Actions:

- A sub-group is examining four curricula and certificate programs. A system will be selected by employers in consultation with educators and workforce development providers;
- Identify resources to launch the program; and
- Connect the workforce development system with employers and educators to ensure consistency in workforce readiness curricula and testing.

3. Identify potential organizational supports, such as: training of mentors, internships for students, and mock interviews to assist job seekers in preparing for the job search.

Actions:

- Stakeholders should inventory existing organizational resources, such as the Chamber of Commerce, and then create an asset map of internships and other assistance to help students and jobseekers in healthcare;
- Stakeholders should identify additional workforce development resources to ensure that the agencies, such as One-Stop Centers, are presenting information that is useful for those wishing to enter the healthcare field; and
- Stakeholders should identify 10-15 professionals who exhibit effective soft skills and then identify 10-15 traits that contribute to their effectiveness; then use this information to add to workforce readiness curriculum at the high school, post-secondary, workforce development, and incumbent worker level.



Initial Healthcare Industry Labor Shortages and Projections



WORKFORCEDEVELOPMENT
COUNCIL

HIGH DEMAND HEALTHCARE OCCUPATIONS IN THE STATE OF HAWAII

To support WDC's planning grant goal of creating a comprehensive plan to increase the primary care health workforce by 20 percent between 2010 and 2020, the Research and Statistics Office researched and reviewed recent health workforce data from several local resources. Our objective was to identify the 25 highest demand healthcare occupations in Hawaii and prioritize the list by professions that needed the most urgent action.

After reviewing statistics from "Health Trends in Hawaii," produced by the Hawaii Health Information Corporation (HHIC); "State of Hawaii - Health Services and Facilities Plan," generated by the State Health Planning and Development Agency; advertised job listings on HireNet; and R&S projected job openings data; we compared them to the list that was compiled by the two healthcare panels that met in the fall of 2010.

As a result of our review, we found that the panels' list was probably the most comprehensive and reflective of healthcare jobs that were currently struggling to be filled since numerous contributors from the health sector, training providers, and community were consulted. In turn, we used HireNet's advertised jobs count and R&S' projected openings data to support the panels' findings and generate a ranking.

The advertised job openings listed on HireNet, although not a comprehensive measure of all openings in the State of Hawaii, provide a glimpse as to the current labor market demand for these occupations, while projected job openings estimate future job trends. The 25 occupations were ranked according to the HireNet job counts since that data was the most up-to-date. In some cases the R&S' projected openings figures represented larger occupational groups for lack of more detailed occupational data.

According to the data in the following table, the need for registered nurses, which include nurse practitioners, advanced practice registered nurses, and nurse managers, is great. Advertised openings as well as projected job openings for registered nurses vastly outnumbered the openings for all of the occupations listed. The following occupations, with over 100 advertised openings per year, also reflect strong demand: physical therapists; nursing aides, orderlies, & attendants; medical records and health information technicians; pharmacists; and mental health and substance abuse social workers.

Education will also be an important factor in addressing workforce shortages. Within the top ten ranked occupations, over half of the occupations are classified in the health diagnosing and treating practitioners' occupational group which in general is comprised of better educated workers with higher earnings. Only two out of the ten jobs – data entry keyers and medical assistants, require moderate on-the-job training. In fact, some degree of post-secondary education will be necessary for twenty out of the twenty-five jobs listed.

ATTACHMENT I

| Health Occupations in High Demand in Hawaii based on Advertised & Projected Job Openings | | | | |
|--|--|--|---|-----------------------------------|
| SOC Code | SOC Occupation Title [Occupations from Skill Panels] | Avg. Annual Advertised Openings 2007-2010 | Avg. Annual Projected Openings 2008-2018 | Training Requirement |
| 29-1111 | Registered Nurses [Nurse Practitioner, RN, APRN, Nurse Manager] | 1,695 | 330 | Associate's Degree |
| 29-1123 | Physical Therapists | 276 | 40 | Master's Degree |
| 31-1012 | Nursing Aides, Orderlies, & Attendants [Certified Nurse Asst (CNA), Patient Care Tech (PCT)] | 236 | 170 | Postsecondary Vocational Award |
| 29-2071 | Medical Records and Health Information Technicians [Medical Coder] | 169 | 20 | Associate's Degree |
| 29-1051 | Pharmacists | 131 | 30 | First-professional degree |
| 21-1023 | Mental Health & Substance Abuse Social Workers [Community Case Manager] | 113 | 30 | Master's Degree |
| 43-9021 | Data Entry Keyers [Health IT Data Entry] | 90 | 20 | Moderate-term on-the-job training |
| 31-9092 | Medical Assistants | 89 | 90 | Moderate-term on-the-job training |
| 11-9111 | Medical & Health Services Managers [CEO/Administrator] | 80 | 30 | Bachelor's + work experience |
| 29-1062 | Family & General Practitioners | 44 | 30 | First-professional degree |
| 29-1069 | Physicians & Surgeons, All Other [Neurologist] | 44 | 20 | First-professional degree |
| 43-3021 | Billing & Posting Clerks & Machine Operators [Billing/Reimbursement Personnel] | 26 | 40 | Short-term on-the-job training |
| 31-1011 | Home Health Aides | 25 | 40 | Short-term on-the-job training |
| 21-1011 | Substance Abuse & Behavioral Disorder Counselors | 23 | 20 | Bachelor's |
| 29-1071 | Physician Assistants | 22 | 10 | Master's Degree |
| 29-2021 | Dental Hygienists | 18 | 30 | Associate's Degree |
| 21-1022 | Medical & Public Health Social Workers | 14 | 30 | Bachelor's |
| 29-1063 | Internists, General | 14 | 10 | First-professional degree |
| 21-1014 | Mental Health Counselors | 14 | 10 | Master's Degree |
| 21-1091 | Health Educators [Community Health Worker] | 11 | 10 | Bachelor's |
| 29-1064 | Obstetricians & Gynecologists | 9 | 10 | First-professional degree |
| 29-1021 | Dentists, General [Pedodontist] | 8 | 20 | First-professional degree |
| 19-3031 | Clinical, Counseling, & School Psychologists | 8 | 40 | Doctoral Degree |
| 29-1065 | Pediatricians, General | 3 | ** | First-professional degree |
| 43-9111 | Statistical Assistants [Health IT Data Analysis] | 3 | ** | Moderate-term on-the-job training |

** The number of openings are greater than zero but less than ten.

ATTACHMENT II

Occupations ranked by Projected Job Openings, State of Hawaii

| SOC Code/Occupation Title | | Healthcare Occupations (from Skill Panels) | Average Annual Openings | | |
|---------------------------|---|---|-------------------------|-----------------------|-------|
| | | | Due to Growth | Due to Replacement | Total |
| 29-1111 | Registered Nurses | Nurse Practitioner, RN, APRN, Nurse Manager | 170 | 160 | 330 |
| 31-1012 | Nursing Aides, Orderlies, and Attendants | Certified Nurse Asst (CNA), Patient Care Tech. (PCT) | 120 | 50 | 170 |
| 31-9092 | Medical Assistants | Medical Assistants | 60 | 30 | 90 |
| 29-2061 | Licensed Practical and Licensed Vocational Nurses | | 30 | 50 | 70 |
| 31-9091 | Dental Assistants | | 30 | 30 | 60 |
| 29-2052 | Pharmacy Technicians | | 30 | 20 | 50 |
| 19-3031 | Clinical, Counseling, and School Psychologists | Psychologists | 10 | 30 | 40 |
| 29-1123 | Physical Therapists | Physical Therapists | 30 | 10 | 40 |
| 31-1011 | Home Health Aides | Home Health Aides | 40 | 10 | 40 |
| 43-3021 | Billing and Posting Clerks and Machine Operators | Billing/Reimbursement Personnel | 10 | 30 | 40 |
| 11-9111 | Medical and Health Services Managers | CEO/Administrator | 10 | 20 | 30 |
| 21-1022 | Medical and Public Health Social Workers | Social Worker | 10 | 10 | 30 |
| 21-1023 | Mental Health and Substance Abuse Social Workers | Community Case Manager | 10 | 20 | 30 |
| 29-1051 | Pharmacists | Pharmacists | 10 | 20 | 30 |
| 29-1062 | Family and General Practitioners | Family and General Medicine | 10 | 20 | 30 |
| 29-2012 | Medical and Clinical Laboratory Technicians | | 10 | 20 | 30 |
| 29-2021 | Dental Hygienists | Dental Hygienists | 10 | 20 | 30 |
| 31-9011 | Massage Therapists | | 10 | 20 | 30 |
| 31-9099 | Healthcare Support Workers, All Other | | 10 | 20 | 30 |
| 21-1011 | Substance Abuse and Behavioral Disorder Counselors | Substance Abuse Counselors | 10 | 10 | 20 |
| 29-1021 | Dentists, General | Pedodontist | 0 | 20 | 20 |
| 29-1041 | Optometrists | | ** | 10 | 20 |
| 29-1069 | Physicians and Surgeons, All Other | Neurologist | 10 | 20 | 20 |
| 29-1126 | Respiratory Therapists | | 10 | 10 | 20 |
| 29-2011 | Medical and Clinical Laboratory Technologists | | 10 | 10 | 20 |
| 29-2034 | Radiologic Technologists and Technicians | | 10 | 10 | 20 |
| 29-2071 | Medical Records and Health Information Technicians | Medical Coder | 10 | 10 | 20 |
| 43-9021 | Data Entry Keyers | Health IT Data Entry | 0 | 20 | 20 |
| 21-1014 | Mental Health Counselors | Mental Health Counselor | 10 | ** | 10 |
| 21-1091 | Health Educators | Community Health worker | 10 | 10 | 10 |
| 29-1031 | Dietitians and Nutritionists | | ** | 10 | 10 |
| 29-1061 | Anesthesiologists | | ** | 10 | 10 |
| 29-1063 | Internists, General | Internal Medicine | ** | 10 | 10 |
| 29-1064 | Obstetricians and Gynecologists | Obstetricians and Gynecologists | ** | ** | 10 |
| 29-1067 | Surgeons | | ** | 10 | 10 |
| 29-1071 | Physician Assistants | Physician Assistants | 10 | 10 | 10 |
| 29-1122 | Occupational Therapists | | ** | 10 | 10 |
| 29-1125 | Recreational Therapists | | ** | ** | 10 |

ATTACHMENT II

Occupations ranked by Projected Job Openings, State of Hawaii

| SOC Code/Occupation Title | | Healthcare Occupations (from Skill Panels) | Average Annual Openings | | |
|---------------------------|---|---|-------------------------|-----------------------|-------|
| | | | Due to Growth | Due to Replacement | Total |
| 29-1127 | Speech-Language Pathologists | | ** | 10 | 10 |
| 29-1199 | Health Diagnosing and Treating Practitioners, All Other | | ** | ** | 10 |
| 29-2031 | Cardiovascular Technologists and Technicians | | ** | ** | 10 |
| 29-2041 | Emergency Medical Technicians and Paramedics | | 0 | 10 | 10 |
| 29-2055 | Surgical Technologists | | ** | 10 | 10 |
| 29-2056 | Veterinary Technologists and Technicians | | ** | 10 | 10 |
| 29-2099 | Health Technologists and Technicians, All Other | | ** | 10 | 10 |
| 29-9011 | Occupational Health and Safety Specialists | | ** | 10 | 10 |
| 29-9091 | Athletic Trainers | | ** | ** | 10 |
| 29-9099 | Healthcare Practitioners and Technical Workers, All Other | | ** | ** | 10 |
| 31-1013 | Psychiatric Aides | | 10 | 10 | 10 |
| 31-2011 | Occupational Therapist Assistants | | 10 | ** | 10 |
| 31-9093 | Medical Equipment Preparers | | ** | ** | 10 |
| 29-1011 | Chiropractors | | ** | ** | ** |
| 29-1029 | Dentists, All Other Specialists | | ** | ** | ** |
| 29-1065 | Pediatricians, General | Pediatrician | ** | ** | ** |
| 29-1066 | Psychiatrists | | ** | ** | ** |
| 29-1129 | Therapists, All Other | | ** | ** | ** |
| 29-1131 | Veterinarians | | ** | ** | ** |
| 29-2032 | Diagnostic Medical Sonographers | | ** | ** | ** |
| 29-2033 | Nuclear Medicine Technologists | | ** | ** | ** |
| 29-2051 | Dietetic Technicians | | ** | ** | ** |
| 29-2081 | Opticians, Dispensing | | ** | ** | ** |
| 29-9012 | Occupational Health and Safety Technicians | | 0 | ** | ** |
| 31-2022 | Physical Therapist Aides | | ** | ** | ** |
| 31-9094 | Medical Transcriptionists | | ** | ** | ** |
| 31-9095 | Pharmacy Aides | | 0 | ** | ** |
| 31-9096 | Veterinary Assistants and Laboratory Animal Caretakers | | 0 | ** | ** |
| 43-9111 | Statistical Assistants | Health IT Data Analysis | 0 | ** | ** |
| 31-2012 | Occupational Therapist Aides | | | | |
| 31-2021 | Physical Therapist Assistants | | | | |
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** Openings are greater than zero but less than 10.

ATTACHMENT II

Occupations ranked by Projected Job Openings, Honolulu MSA

| SOC Code/Occupation Title | | Healthcare Occupations (from Skill Panels) | Average Annual Openings | | |
|---------------------------|---|---|-------------------------|-----------------------|-------|
| | | | Due to Growth | Due to Replacement | Total |
| 29-1111 | Registered Nurses | Nurse Practitioner, RN, APRN, Nurse Manager | 100 | 130 | 220 |
| 31-1012 | Nursing Aides, Orderlies, and Attendants | Certified Nurse Asst (CNA), Patient Care Tech. (PCT) | 50 | 30 | 80 |
| 31-1011 | Home Health Aides | Home Health Aides | 50 | 10 | 60 |
| 29-2052 | Pharmacy Technicians | | 20 | 30 | 50 |
| 29-2061 | Licensed Practical and Licensed Vocational Nurses | | 10 | 40 | 50 |
| 31-9092 | Medical Assistants | Medical Assistants | 30 | 20 | 40 |
| 29-1051 | Pharmacists | Pharmacists | 10 | 20 | 30 |
| 31-9091 | Dental Assistants | | 10 | 20 | 30 |
| 11-9111 | Medical and Health Services Managers | CEO/Administrator | ** | 20 | 20 |
| 21-1011 | Substance Abuse and Behavioral Disorder Counselors | Substance Abuse Counselors | 10 | 10 | 20 |
| 21-1014 | Mental Health Counselors | Mental Health Counselor | 10 | 10 | 20 |
| 21-1022 | Medical and Public Health Social Workers | Social Worker | 10 | 10 | 20 |
| 29-1069 | Physicians and Surgeons, All Other | Neurologist | ** | 20 | 20 |
| 29-2021 | Dental Hygienists | Dental Hygienists | 10 | 10 | 20 |
| 29-2071 | Medical Records and Health Information Technicians | Medical Coder | ** | 10 | 20 |
| 31-9011 | Massage Therapists | | 10 | 10 | 20 |
| 31-9099 | Healthcare Support Workers, All Other | | 10 | 10 | 20 |
| 43-3021 | Billing and Posting Clerks and Machine Operators | Billing/Reimbursement Personnel | 0 | 20 | 20 |
| 43-9021 | Data Entry Keyers | Health IT Data Entry | 0 | 20 | 20 |
| 19-3031 | Clinical, Counseling, and School Psychologists | Psychologists | ** | 10 | 10 |
| 21-1023 | Mental Health and Substance Abuse Social Workers | Community Case Manager | ** | ** | 10 |
| 21-1091 | Health Educators | Community Health worker | ** | ** | 10 |
| 29-1021 | Dentists, General | Pedodontist | 0 | 10 | 10 |
| 29-1031 | Dietitians and Nutritionists | | ** | 10 | 10 |
| 29-1062 | Family and General Practitioners | Family and General Medicine | 0 | 10 | 10 |
| 29-1122 | Occupational Therapists | | ** | ** | 10 |
| 29-1123 | Physical Therapists | Physical Therapists | 10 | 10 | 10 |
| 29-1126 | Respiratory Therapists | | ** | ** | 10 |
| 29-1131 | Veterinarians | | ** | ** | 10 |
| 29-2011 | Medical and Clinical Laboratory Technologists | | 10 | 10 | 10 |
| 29-2012 | Medical and Clinical Laboratory Technicians | | 0 | 10 | 10 |
| 29-2031 | Cardiovascular Technologists and Technicians | | ** | ** | 10 |
| 29-2034 | Radiologic Technologists and Technicians | | ** | 10 | 10 |
| 29-2041 | Emergency Medical Technicians and Paramedics | | ** | ** | 10 |
| 29-2055 | Surgical Technologists | | ** | 10 | 10 |
| 29-2056 | Veterinary Technologists and Technicians | | 10 | 10 | 10 |
| 29-2081 | Opticians, Dispensing | | 0 | 10 | 10 |

ATTACHMENT II

Occupations ranked by Projected Job Openings, Honolulu MSA

| SOC Code/Occupation Title | | Healthcare Occupations (from Skill Panels) | Average Annual Openings | | |
|---------------------------|--|---|-------------------------|-----------------------|-------|
| | | | Due to Growth | Due to Replacement | Total |
| 29-9011 | Occupational Health and Safety Specialists | | ** | 10 | 10 |
| 29-9099 | Healthcare Practitioners and Technical Workers, All Other | | ** | 10 | 10 |
| 29-1061 | Anesthesiologists | | 0 | 0 | 0 |
| 29-1129 | Therapists, All Other | | 0 | 0 | 0 |
| 29-1011 | Chiropractors | | 0 | ** | ** |
| 29-1041 | Optometrists | | 0 | ** | ** |
| 29-1063 | Internists, General | Internal Medicine | 0 | ** | ** |
| 29-1065 | Pediatricians, General | Pediatrician | 0 | ** | ** |
| 29-1066 | Psychiatrists | | 0 | ** | ** |
| 29-1067 | Surgeons | | 0 | ** | ** |
| 29-1071 | Physician Assistants | Physician Assistants | ** | ** | ** |
| 29-1125 | Recreational Therapists | | 0 | ** | ** |
| 29-1127 | Speech-Language Pathologists | | 0 | ** | ** |
| 29-2032 | Diagnostic Medical Sonographers | | ** | ** | ** |
| 29-2051 | Dietetic Technicians | | 0 | ** | ** |
| 29-2099 | Health Technologists and Technicians, All Other | | 0 | ** | ** |
| 31-1013 | Psychiatric Aides | | 0 | ** | ** |
| 31-2021 | Physical Therapist Assistants | | ** | ** | ** |
| 31-2022 | Physical Therapist Aides | | ** | ** | ** |
| 31-9093 | Medical Equipment Preparers | | 0 | ** | ** |
| 31-9094 | Medical Transcriptionists | | 0 | ** | ** |
| 31-9095 | Pharmacy Aides | | 0 | ** | ** |
| 31-9096 | Veterinary Assistants and Laboratory Animal Caretakers | | 0 | ** | ** |
| 43-9111 | Statistical Assistants | Health IT Data Analysis | 0 | ** | ** |
| 29-1029 | Dentists, All Other Specialists | | | | |
| 29-1064 | Obstetricians and Gynecologists | Obstetricians and Gynecologists | | | |
| 29-1199 | Health Diagnosing and Treating Practitioners, All Other | | | | |
| 29-2033 | Nuclear Medicine Technologists | | | | |
| 29-9012 | Occupational Health and Safety Technicians | | | | |
| 29-9091 | Athletic Trainers | | | | |
| 31-2011 | Occupational Therapist Assistants | | | | |
| 31-2012 | Occupational Therapist Aides | | | | |
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** Openings are greater than zero but less than 10.

ATTACHMENT II

Occupations ranked by Projected Job Openings, Hawaii County

| SOC Code/Occupation Title | | Healthcare Occupations (from Skill Panels) | Average Annual Openings | | |
|---------------------------|---|---|-------------------------|-----------------------|-------|
| | | | Due to Growth | Due to Replacement | Total |
| 29-1111 | Registered Nurses | Nurse Practitioner, RN, APRN, Nurse Manager | 30 | 20 | 40 |
| 31-1012 | Nursing Aides, Orderlies, and Attendants | Certified Nurse Asst (CNA), Patient Care Tech. (PCT) | 10 | 10 | 20 |
| 31-1011 | Home Health Aides | Home Health Aides | 10 | 0 | 10 |
| 29-2052 | Pharmacy Technicians | | ** | ** | 10 |
| 29-2061 | Licensed Practical and Licensed Vocational Nurses | | 0 | 10 | 10 |
| 31-9091 | Dental Assistants | | ** | ** | 10 |
| 43-3021 | Billing and Posting Clerks and Machine Operators | Billing/Reimbursement Personnel | ** | ** | 10 |
| 11-9111 | Medical and Health Services Managers | CEO/Administrator | ** | ** | ** |
| 21-1022 | Medical and Public Health Social Workers | Social Worker | ** | ** | ** |
| 21-1023 | Mental Health and Substance Abuse Social Workers | Community Case Manager | ** | ** | ** |
| 21-1091 | Health Educators | Community Health worker | ** | ** | ** |
| 29-1031 | Dietitians and Nutritionists | | ** | ** | ** |
| 29-1051 | Pharmacists | Pharmacists | ** | ** | ** |
| 29-1123 | Physical Therapists | Physical Therapists | ** | ** | ** |
| 29-2041 | Emergency Medical Technicians and Paramedics | | ** | ** | ** |
| 31-2022 | Physical Therapist Aides | | ** | ** | ** |
| 31-9099 | Healthcare Support Workers, All Other | | ** | ** | ** |
| 43-9021 | Data Entry Keyers | Health IT Data Entry | ** | ** | ** |
| 19-3031 | Clinical, Counseling, and School Psychologists | Psychologists | | | |
| 21-1011 | Substance Abuse and Behavioral Disorder Counselors | Substance Abuse Counselors | | | |
| 21-1014 | Mental Health Counselors | Mental Health Counselor | | | |
| 29-1011 | Chiropractors | | | | |
| 29-1021 | Dentists, General | Pedodontist | | | |
| 29-1029 | Dentists, All Other Specialists | | | | |
| 29-1041 | Optometrists | | | | |
| 29-1061 | Anesthesiologists | | | | |
| 29-1062 | Family and General Practitioners | Family and General Medicine | | | |
| 29-1063 | Internists, General | Internal Medicine | | | |
| 29-1064 | Obstetricians and Gynecologists | Obstetricians and Gynecologists | | | |
| 29-1065 | Pediatricians, General | Pediatrician | | | |
| 29-1066 | Psychiatrists | | | | |
| 29-1067 | Surgeons | | | | |
| 29-1069 | Physicians and Surgeons, All Other | Neurologist | | | |
| 29-1071 | Physician Assistants | Physician Assistants | | | |
| 29-1122 | Occupational Therapists | | | | |
| 29-1125 | Recreational Therapists | | | | |
| 29-1126 | Respiratory Therapists | | | | |
| 29-1127 | Speech-Language Pathologists | | | | |
| 29-1129 | Therapists, All Other | | | | |

ATTACHMENT II

Occupations ranked by Projected Job Openings, Hawaii County

| SOC Code/Occupation Title | | Healthcare Occupations (from Skill Panels) | Average Annual Openings | | |
|---------------------------|---|---|-------------------------|-----------------------|-------|
| | | | Due to Growth | Due to Replacement | Total |
| 29-1131 | Veterinarians | | | | |
| 29-1199 | Health Diagnosing and Treating Practitioners, All Other | | | | |
| 29-2011 | Medical and Clinical Laboratory Technologists | | | | |
| 29-2012 | Medical and Clinical Laboratory Technicians | | | | |
| 29-2021 | Dental Hygienists | Dental Hygienists | | | |
| 29-2031 | Cardiovascular Technologists and Technicians | | | | |
| 29-2032 | Diagnostic Medical Sonographers | | | | |
| 29-2033 | Nuclear Medicine Technologists | | | | |
| 29-2034 | Radiologic Technologists and Technicians | | | | |
| 29-2051 | Dietetic Technicians | | | | |
| 29-2055 | Surgical Technologists | | | | |
| 29-2056 | Veterinary Technologists and Technicians | | | | |
| 29-2071 | Medical Records and Health Information Technicians | Medical Coder | | | |
| 29-2081 | Opticians, Dispensing | | | | |
| 29-2099 | Health Technologists and Technicians, All Other | | | | |
| 29-9011 | Occupational Health and Safety Specialists | | | | |
| 29-9012 | Occupational Health and Safety Technicians | | | | |
| 29-9091 | Athletic Trainers | | | | |
| 29-9099 | Healthcare Practitioners and Technical Workers, All Other | | | | |
| 31-1013 | Psychiatric Aides | | | | |
| 31-2011 | Occupational Therapist Assistants | | | | |
| 31-2012 | Occupational Therapist Aides | | | | |
| 31-2021 | Physical Therapist Assistants | | | | |
| 31-9011 | Massage Therapists | | | | |
| 31-9092 | Medical Assistants | Medical Assistants | | | |
| 31-9093 | Medical Equipment Preparers | | | | |
| 31-9094 | Medical Transcriptionists | | | | |
| 31-9095 | Pharmacy Aides | | | | |
| 31-9096 | Veterinary Assistants and Laboratory Animal Caretakers | | | | |
| 43-9111 | Statistical Assistants | Health IT Data Analysis | | | |
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** Openings are greater than zero but less than 10.

Occupations ranked by Projected Job Openings, Maui County

| SOC Code/Occupation Title | | Healthcare Occupations (from Skill Panels) | Average Annual Openings | | |
|---------------------------|--|--|-------------------------|-----------------------|-------|
| | | | Due to Growth | Due to Replacement | Total |
| 29-1111 | Registered Nurses | Nurse Practitioner, RN, APRN, Nurse Manager | 20 | 10 | 30 |
| 31-1011 | Home Health Aides | Home Health Aides | 10 | ** | 20 |
| 29-2052 | Pharmacy Technicians | | 10 | 0 | 10 |
| 29-1051 | Pharmacists | Pharmacists | ** | ** | 10 |
| 29-2061 | Licensed Practical and Licensed Vocational Nurses | | ** | ** | 10 |
| 11-9111 | Medical and Health Services Managers | CEO/Administrator | ** | ** | ** |
| 21-1091 | Health Educators | Community Health worker | ** | ** | ** |
| 29-1069 | Physicians and Surgeons, All Other | Neurologist | ** | ** | ** |
| 29-1123 | Physical Therapists | Physical Therapists | ** | ** | ** |
| 43-3021 | Billing and Posting Clerks and Machine Operators | Billing/Reimbursement Personnel | ** | ** | ** |
| 19-3031 | Clinical, Counseling, and School Psychologists | Psychologists | | | |
| 21-1011 | Substance Abuse and Behavioral Disorder Counselors | Substance Abuse Counselors | | | |
| 21-1014 | Mental Health Counselors | Mental Health Counselor | | | |
| 21-1022 | Medical and Public Health Social Workers | Social Worker | | | |
| 21-1023 | Mental Health and Substance Abuse Social Workers | Community Case Manager | | | |
| 29-1011 | Chiropractors | | | | |
| 29-1021 | Dentists, General | Pedodontist | | | |
| 29-1029 | Dentists, All Other Specialists | | | | |
| 29-1031 | Dietitians and Nutritionists | | | | |
| 29-1041 | Optometrists | | | | |
| 29-1061 | Anesthesiologists | | | | |
| 29-1062 | Family and General Practitioners | Family and General Medicine | | | |
| 29-1063 | Internists, General | Internal Medicine | | | |
| 29-1064 | Obstetricians and Gynecologists | Obstetricians and Gynecologists | | | |
| 29-1065 | Pediatricians, General | Pediatrician | | | |
| 29-1066 | Psychiatrists | | | | |
| 29-1067 | Surgeons | | | | |
| 29-1071 | Physician Assistants | Physician Assistants | | | |
| 29-1122 | Occupational Therapists | | | | |
| 29-1125 | Recreational Therapists | | | | |
| 29-1126 | Respiratory Therapists | | | | |
| 29-1127 | Speech-Language Pathologists | | | | |
| 29-1129 | Therapists, All Other | | | | |
| 29-1131 | Veterinarians | | | | |
| 29-1199 | Health Diagnosing and Treating Practitioners, All Other | | | | |
| 29-2011 | Medical and Clinical Laboratory Technologists | | | | |
| 29-2012 | Medical and Clinical Laboratory Technicians | | | | |
| 29-2021 | Dental Hygienists | Dental Hygienists | | | |
| 29-2031 | Cardiovascular Technologists and Technicians | | | | |

Occupations ranked by Projected Job Openings, Maui County

| SOC Code/Occupation Title | | Healthcare Occupations (from Skill Panels) | Average Annual Openings | | |
|---------------------------|---|---|-------------------------|-----------------------|-------|
| | | | Due to Growth | Due to Replacement | Total |
| 29-2032 | Diagnostic Medical Sonographers | | | | |
| 29-2033 | Nuclear Medicine Technologists | | | | |
| 29-2034 | Radiologic Technologists and Technicians | | | | |
| 29-2041 | Emergency Medical Technicians and Paramedics | | | | |
| 29-2051 | Dietetic Technicians | | | | |
| 29-2055 | Surgical Technologists | | | | |
| 29-2056 | Veterinary Technologists and Technicians | | | | |
| 29-2071 | Medical Records and Health Information Technicians | Medical Coder | | | |
| 29-2081 | Opticians, Dispensing | | | | |
| 29-2099 | Health Technologists and Technicians, All Other | | | | |
| 29-9011 | Occupational Health and Safety Specialists | | | | |
| 29-9012 | Occupational Health and Safety Technicians | | | | |
| 29-9091 | Athletic Trainers | | | | |
| 29-9099 | Healthcare Practitioners and Technical Workers, All Other | | | | |
| 31-1012 | Nursing Aides, Orderlies, and Attendants | Certified Nurse Asst (CNA), Patient Care Tech. (PCT) | | | |
| 31-1013 | Psychiatric Aides | | | | |
| 31-2011 | Occupational Therapist Assistants | | | | |
| 31-2012 | Occupational Therapist Aides | | | | |
| 31-2021 | Physical Therapist Assistants | | | | |
| 31-2022 | Physical Therapist Aides | | | | |
| 31-9011 | Massage Therapists | | | | |
| 31-9091 | Dental Assistants | | | | |
| 31-9092 | Medical Assistants | Medical Assistants | | | |
| 31-9093 | Medical Equipment Preparers | | | | |
| 31-9094 | Medical Transcriptionists | | | | |
| 31-9095 | Pharmacy Aides | | | | |
| 31-9096 | Veterinary Assistants and Laboratory Animal Caretakers | | | | |
| 31-9099 | Healthcare Support Workers, All Other | | | | |
| 43-9021 | Data Entry Keyers | Health IT Data Entry | | | |
| 43-9111 | Statistical Assistants | Health IT Data Analysis | | | |
| | | | | | |
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** Openings are greater than zero but less than 10.

ATTACHMENT II

Occupations ranked by Projected Job Openings, Kauai County

| SOC Code/Occupation Title | | Healthcare Occupations (from Skill Panels) | Average Annual Openings | | |
|---------------------------|--|---|-------------------------|-----------------------|-------|
| | | | Due to Growth | Due to Replacement | Total |
| 29-1111 | Registered Nurses | Nurse Practitioner, RN, APRN, Nurse Manager | 10 | 10 | 20 |
| 31-1012 | Nursing Aides, Orderlies, and Attendants | Certified Nurse Asst (CNA), Patient Care Tech. (PCT) | 10 | 0 | 10 |
| 31-9011 | Massage Therapists | | 0 | 10 | 10 |
| 29-1051 | Pharmacists | Pharmacists | ** | ** | ** |
| 29-2052 | Pharmacy Technicians | | ** | ** | ** |
| 29-2061 | Licensed Practical and Licensed Vocational Nurses | | ** | ** | ** |
| 31-9092 | Medical Assistants | Medical Assistants | ** | ** | ** |
| 31-9099 | Healthcare Support Workers, All Other | | ** | ** | ** |
| 43-3021 | Billing and Posting Clerks and Machine Operators | Billing/Reimbursement Personnel | ** | ** | ** |
| 11-9111 | Medical and Health Services Managers | CEO/Administrator | | | |
| 19-3031 | Clinical, Counseling, and School Psychologists | Psychologists | | | |
| 21-1011 | Substance Abuse and Behavioral Disorder Counselors | Substance Abuse Counselors | | | |
| 21-1014 | Mental Health Counselors | Mental Health Counselor | | | |
| 21-1022 | Medical and Public Health Social Workers | Social Worker | | | |
| 21-1023 | Mental Health and Substance Abuse Social Workers | Community Case Manager | | | |
| 21-1091 | Health Educators | Community Health worker | | | |
| 29-1011 | Chiropractors | | | | |
| 29-1021 | Dentists, General | Pedodontist | | | |
| 29-1029 | Dentists, All Other Specialists | | | | |
| 29-1031 | Dietitians and Nutritionists | | | | |
| 29-1041 | Optometrists | | | | |
| 29-1061 | Anesthesiologists | | | | |
| 29-1062 | Family and General Practitioners | Family and General Medicine | | | |
| 29-1063 | Internists, General | Internal Medicine | | | |
| 29-1064 | Obstetricians and Gynecologists | Obstetricians and Gynecologists | | | |
| 29-1065 | Pediatricians, General | Pediatrician | | | |
| 29-1066 | Psychiatrists | | | | |
| 29-1067 | Surgeons | | | | |
| 29-1069 | Physicians and Surgeons, All Other | Neurologist | | | |
| 29-1071 | Physician Assistants | Physician Assistants | | | |
| 29-1122 | Occupational Therapists | | | | |
| 29-1123 | Physical Therapists | Physical Therapists | | | |
| 29-1125 | Recreational Therapists | | | | |
| 29-1126 | Respiratory Therapists | | | | |
| 29-1127 | Speech-Language Pathologists | | | | |
| 29-1129 | Therapists, All Other | | | | |
| 29-1131 | Veterinarians | | | | |
| 29-1199 | Health Diagnosing and Treating Practitioners, All Other | | | | |

ATTACHMENT II

Occupations ranked by Projected Job Openings, Kauai County

| SOC Code/Occupation Title | | Healthcare Occupations (from Skill Panels) | Average Annual Openings | | |
|---------------------------|---|---|-------------------------|-----------------------|-------|
| | | | Due to Growth | Due to Replacement | Total |
| 29-2011 | Medical and Clinical Laboratory Technologists | | | | |
| 29-2012 | Medical and Clinical Laboratory Technicians | | | | |
| 29-2021 | Dental Hygienists | Dental Hygienists | | | |
| 29-2031 | Cardiovascular Technologists and Technicians | | | | |
| 29-2032 | Diagnostic Medical Sonographers | | | | |
| 29-2033 | Nuclear Medicine Technologists | | | | |
| 29-2034 | Radiologic Technologists and Technicians | | | | |
| 29-2041 | Emergency Medical Technicians and Paramedics | | | | |
| 29-2051 | Dietetic Technicians | | | | |
| 29-2055 | Surgical Technologists | | | | |
| 29-2056 | Veterinary Technologists and Technicians | | | | |
| 29-2071 | Medical Records and Health Information Technicians | Medical Coder | | | |
| 29-2081 | Opticians, Dispensing | | | | |
| 29-2099 | Health Technologists and Technicians, All Other | | | | |
| 29-9011 | Occupational Health and Safety Specialists | | | | |
| 29-9012 | Occupational Health and Safety Technicians | | | | |
| 29-9091 | Athletic Trainers | | | | |
| 29-9099 | Healthcare Practitioners and Technical Workers, All Other | | | | |
| 31-1011 | Home Health Aides | Home Health Aides | | | |
| 31-1013 | Psychiatric Aides | | | | |
| 31-2011 | Occupational Therapist Assistants | | | | |
| 31-2012 | Occupational Therapist Aides | | | | |
| 31-2021 | Physical Therapist Assistants | | | | |
| 31-2022 | Physical Therapist Aides | | | | |
| 31-9091 | Dental Assistants | | | | |
| 31-9093 | Medical Equipment Preparers | | | | |
| 31-9094 | Medical Transcriptionists | | | | |
| 31-9095 | Pharmacy Aides | | | | |
| 31-9096 | Veterinary Assistants and Laboratory Animal Caretakers | | | | |
| 43-9021 | Data Entry Keyers | Health IT Data Entry | | | |
| 43-9111 | Statistical Assistants | Health IT Data Analysis | | | |
| | | | | | |
| | | | | | |

** Openings are greater than zero but less than 10.

TOTAL PROJECTED AVERAGE ANNUAL OPENINGS FOR STATE AND COUNTIES

| SOC Code | Occupation Title | Healthcare Occupations (from Skill Panels) | State of Hawaii 2008-2018 Average Annual Openings | | | Honolulu MSA 2006-2016 Average Annual Openings | | | Hawaii County 2004-2014 Average Annual Openings | | | Kauai County 2004-2014 Average Annual Openings | | | Maui County 2004-2014 Average Annual Openings | | |
|----------|--|--|---|-----------------------|-------------------|--|-----------------------|-------------------|---|-----------------------|-------------------|--|-----------------------|-------------------|---|-----------------------|-------------------|
| | | | Due to Growth | Due to Replacement | Total Openings | Due to Growth | Due to Replacement | Total Openings | Due to Growth | Due to Replacement | Total Openings | Due to Growth | Due to Replacement | Total Openings | Due to Growth | Due to Replacement | Total Openings |
| 11-9111 | Managers Medical & Health Services | CEO/Administrator | 10 | 20 | 30 | ** | 20 | 20 | ** | ** | ** | ** | ** | ** | ** | ** | |
| 19-3031 | Clinical, Counseling, & School Psychologists | Psychologists | 10 | 30 | 40 | ** | 10 | 10 | | | | | | | | | |
| 21-1011 | Substance Abuse & Behavioral Disorder Counselors | Substance Abuse Counselors | 10 | 10 | 20 | 10 | 10 | 20 | | | | | | | | | |
| 21-1014 | Mental Health Counselors | Mental Health Counselor | 10 | ** | 10 | 10 | 10 | 20 | | | | | | | | | |
| 21-1022 | Medical & Public Health Social Workers | Social Worker | 10 | 10 | 30 | 10 | 10 | 20 | ** | ** | ** | ** | ** | ** | ** | ** | |
| 21-1023 | Mental Health & Substance Abuse Social Workers | Community Case Manager Community Health worker | 10 | 20 | 30 | ** | ** | 10 | ** | ** | ** | ** | ** | ** | ** | ** | |
| 21-1091 | Health Educators | | 10 | 10 | 10 | ** | ** | 10 | ** | ** | ** | ** | ** | ** | ** | ** | |
| 29-1011 | Chiropractors | | ** | ** | ** | 0 | ** | ** | | | | | | | | | |
| 29-1021 | Dentists, General | Pedodontist | 0 | 20 | 20 | 0 | 10 | 10 | | | | | | | | | |
| 29-1029 | Dentists, All Other Specialists | | ** | ** | ** | | | | | | | | | | | | |
| 29-1031 | Dietitians & Nutritionists | | ** | 10 | 10 | ** | 10 | 10 | ** | ** | ** | ** | ** | ** | ** | ** | |
| 29-1041 | Optometrists | | ** | 10 | 20 | 0 | ** | ** | | | | | | | | | |
| 29-1051 | Pharmacists | Pharmacists | ** | 20 | 30 | 10 | 20 | 30 | ** | ** | ** | ** | ** | ** | ** | ** | |
| 29-1061 | Anesthesiologists Family & General | Family & General Medicine | ** | 10 | 10 | 0 | 0 | 0 | | | | | | | | | |
| 29-1062 | Practitioners | Medicine | 10 | 20 | 30 | 0 | 10 | 10 | | | | | | | | | |
| 29-1063 | Internists, General | Internal Medicine | ** | 10 | 10 | 0 | ** | ** | | | | | | | | | |
| 29-1064 | Obstetricians & Gynecologists | Obstetricians & Gynecologists | ** | ** | 10 | | | | | | | | | | | | |
| 29-1065 | Pediatricians, General | Pediatrician | ** | ** | ** | 0 | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | |
| 29-1066 | Psychiatrists | | ** | ** | ** | 0 | ** | ** | | | | | | | | | |
| 29-1067 | Surgeons | | ** | 10 | 10 | 0 | ** | ** | | | | | | | | | |
| 29-1069 | Physicians & Surgeons, All Other | Neurologist | 10 | 20 | 20 | ** | 20 | 20 | | | | | | | | ** | |
| 29-1071 | Physician Assistants | Physician Assistants Nurse Practitioner, RN, APRN, Nurse Manager | 10 | 10 | 10 | ** | ** | ** | | | | | | | | ** | |
| 29-1111 | Registered Nurses | | 170 | 160 | 330 | 100 | 130 | 220 | 30 | 20 | 40 | 10 | 10 | 20 | 10 | 30 | |

TOTAL PROJECTED AVERAGE ANNUAL OPENINGS FOR STATE AND COUNTIES

| SOC Code | Occupation Title | Healthcare Occupations (from Skill Panels) | | | State of Hawaii 2008-2018 Average Annual Openings | | | Honolulu MSA 2006-2016 Average Annual Openings | | | Hawaii County 2004-2014 Average Annual Openings | | | Kauai County 2004-2014 Average Annual Openings | | | Maui County 2004-2014 Average Annual Openings | | |
|----------|---|---|-----------------------|-------------------|---|-----------------------|-------------------|--|-----------------------|-------------------|---|-----------------------|-------------------|--|-----------------------|-------------------|---|-----------------------|-------------------|
| | | Due to Growth | Due to Replacement | Total Openings | Due to Growth | Due to Replacement | Total Openings | Due to Growth | Due to Replacement | Total Openings | Due to Growth | Due to Replacement | Total Openings | Due to Growth | Due to Replacement | Total Openings | Due to Growth | Due to Replacement | Total Openings |
| 29-1122 | Occupational Therapists | ** | 10 | 10 | ** | ** | 10 | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** |
| 29-1123 | Physical Therapists | 30 | 10 | 40 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| 29-1125 | Recreational Therapists | ** | ** | 10 | ** | ** | 10 | 0 | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** |
| 29-1126 | Respiratory Therapists | 10 | 10 | 20 | ** | ** | 10 | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** |
| 29-1127 | Speech-Language Pathologists | ** | 10 | 10 | ** | ** | 10 | 0 | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** |
| 29-1129 | Therapists, All Other | ** | ** | ** | ** | ** | 0 | 0 | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** |
| 29-1131 | Veterinarians | ** | ** | ** | ** | ** | 10 | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** |
| | Health Diagnosing & Treating Practitioners, All Other | ** | ** | 10 | ** | ** | 10 | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** |
| 29-2011 | Medical & Clinical Laboratory Technologists | 10 | 10 | 20 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| 29-2012 | Medical & Clinical Laboratory Technicians | 10 | 20 | 30 | 10 | 20 | 30 | 0 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| 29-2021 | Dental Hygienists | 10 | 20 | 30 | 10 | 20 | 30 | 10 | 10 | 20 | 10 | 20 | 10 | 20 | 10 | 20 | 10 | 20 | 10 |
| 29-2031 | Cardiovascular Technologists & Technicians | ** | ** | 10 | ** | ** | 10 | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** |
| 29-2032 | Diagnostic Medical Sonographers | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** |
| 29-2033 | Nuclear Medicine Technologists | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** |
| 29-2034 | Radiologic Technologists & Technicians | 10 | 10 | 20 | ** | ** | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| 29-2041 | Emergency Medical Technicians & Paramedics | 0 | 10 | 10 | ** | ** | 10 | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** |
| 29-2051 | Dietetic Technicians | ** | ** | ** | ** | ** | 0 | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** |
| 29-2052 | Pharmacy Technicians | 30 | 20 | 50 | 30 | 20 | 50 | 20 | 30 | 50 | 30 | 50 | 20 | 30 | 50 | 20 | 30 | 50 | 20 |
| 29-2055 | Surgical Technologists | ** | 10 | 10 | ** | ** | 10 | ** | 10 | 10 | ** | ** | ** | 10 | 10 | ** | ** | ** | ** |
| 29-2056 | Veterinary Technologists & Technicians | ** | 10 | 10 | ** | ** | 10 | 10 | 10 | 10 | ** | ** | ** | 10 | 10 | ** | ** | ** | ** |
| 29-2061 | Licensed Practical & Licensed Vocational Nurses | 30 | 50 | 70 | 30 | 50 | 70 | 10 | 40 | 50 | 10 | 40 | 10 | 40 | 50 | 10 | 40 | 50 | 10 |

| Healthcare Occupations (from Skill Panels) | SOC Code | Occupation Title |
|--|----------|---|
| CEO/Administrator | 11-9111 | Medical and Health Services Managers |
| Psychologists | 19-3031 | Clinical, Counseling, and School Psychologists |
| Substance Abuse Counselors | 21-1011 | Substance Abuse and Behavioral Disorder Counselors |
| Mental Health Counselor | 21-1014 | Mental Health Counselors |
| Social Worker | 21-1022 | Medical and Public Health Social Workers |
| Community Case Manager | 21-1023 | Mental Health and Substance Abuse Social Workers |
| Community Health worker | 21-1091 | Health Educators |
| | 29-1011 | Chiropractors |
| Pedodontist | 29-1021 | Dentists, General |
| | 29-1029 | Dentists, All Other Specialists |
| | 29-1031 | Dietitians and Nutritionists |
| | 29-1041 | Optometrists |
| Pharmacists | 29-1051 | Pharmacists |
| | 29-1061 | Anesthesiologists |
| Family and General Medicine | 29-1062 | Family and General Practitioners |
| Internal Medicine | 29-1063 | Internists, General |
| | 29-1064 | Obstetricians and Gynecologists |
| Pediatrician | 29-1065 | Pediatricians, General |
| | 29-1066 | Psychiatrists |
| | 29-1067 | Surgeons |
| Neurologist | 29-1069 | Physicians and Surgeons, All Other |
| Physician Assistants | 29-1071 | Physician Assistants |
| Nurse Practitioner, RN, APRN, Nurse Manager | 29-1111 | Registered Nurses |
| | 29-1122 | Occupational Therapists |
| Physical Therapists | 29-1123 | Physical Therapists |
| | 29-1125 | Recreational Therapists |
| | 29-1126 | Respiratory Therapists |
| | 29-1127 | Speech-Language Pathologists |
| | 29-1129 | Therapists, All Other |
| | 29-1131 | Veterinarians |
| | 29-1199 | Health Diagnosing and Treating Practitioners, All Other |
| | 29-2011 | Medical and Clinical Laboratory Technologists |
| | 29-2012 | Medical and Clinical Laboratory Technicians |
| Dental Hygienists | 29-2021 | Dental Hygienists |
| | 29-2031 | Cardiovascular Technologists and Technicians |
| | 29-2032 | Diagnostic Medical Sonographers |
| | 29-2033 | Nuclear Medicine Technologists |
| | 29-2034 | Radiologic Technologists and Technicians |
| | 29-2041 | Emergency Medical Technicians and Paramedics |
| | 29-2051 | Dietetic Technicians |
| | 29-2052 | Pharmacy Technicians |
| | 29-2055 | Surgical Technologists |
| | 29-2056 | Veterinary Technologists and Technicians |
| | 29-2061 | Licensed Practical and Licensed Vocational Nurses |
| Medical Coder | 29-2071 | Medical Records and Health Information Technicians |
| | 29-2081 | Opticians, Dispensing |
| | 29-2099 | Health Technologists and Technicians, All Other |
| | 29-9011 | Occupational Health and Safety Specialists |
| | 29-9012 | Occupational Health and Safety Technicians |
| | 29-9091 | Athletic Trainers |
| | 29-9099 | Healthcare Practitioners and Technical Workers, All Other |
| Home Health Aides | 31-1011 | Home Health Aides |
| Certified Nurse Asst (CNA), Patient Care Tech. (PCT) | 31-1012 | Nursing Aides, Orderlies, and Attendants |
| | 31-1013 | Psychiatric Aides |

| Healthcare Occupations (from Skill Panels) | SOC Code | Occupation Title |
|--|----------|--|
| | 31-2011 | Occupational Therapist Assistants |
| | 31-2012 | Occupational Therapist Aides |
| | 31-2021 | Physical Therapist Assistants |
| | 31-2022 | Physical Therapist Aides |
| | 31-9011 | Massage Therapists |
| | 31-9091 | Dental Assistants |
| Medical Assistants | 31-9092 | Medical Assistants |
| | 31-9093 | Medical Equipment Preparers |
| | 31-9094 | Medical Transcriptionists |
| | 31-9095 | Pharmacy Aides |
| | 31-9096 | Veterinary Assistants and Laboratory Animal Caretakers |
| | 31-9099 | Healthcare Support Workers, All Other |
| Billing/Reimbursement Personnel | 43-3021 | Billing and Posting Clerks and Machine Operators |
| Health IT Data Entry | 43-9021 | Data Entry Keyers |
| Health IT Data Analysis | 43-9111 | Statistical Assistants |

ATTACHMENT III

| Occupations ranked by Advertised Job Openings, State of Hawaii | | | | | | | |
|--|--|---|-------|-------|-------|-------|---------|
| SOC Code/Occupation Title | | Healthcare Occupations (from Skill Panels) | 2007* | 2008 | 2009 | 2010 | Average |
| 29-1111 | Registered Nurses | Nurse Practitioner, RN, APRN, Nurse Manager | 2,281 | 2,137 | 1,343 | 1,020 | 1,695 |
| 29-1123 | Physical Therapists | Physical Therapists | 264 | 372 | 275 | 193 | 276 |
| 31-1012 | Nursing Aides, Orderlies, & Attendants | Certified Nurse Asst (CNA), Patient Care Tech. (PCT) | 336 | 202 | 250 | 157 | 236 |
| 29-2061 | Licensed Practical & Licensed Vocational Nurses | | 245 | 241 | 210 | 115 | 203 |
| 29-1122 | Occupational Therapists | | 184 | 252 | 151 | 106 | 173 |
| 29-2071 | Medical Records & Health Information Technicians | Medical Coder | 262 | 231 | 131 | 51 | 169 |
| 31-9093 | Medical Equipment Preparers | | 129 | 384 | 71 | 7 | 148 |
| 29-1051 | Pharmacists | Pharmacists | 157 | 199 | 100 | 66 | 131 |
| 21-1023 | Mental Health & Substance Abuse Social Workers | Community Case Manager | 97 | 263 | 65 | 27 | 113 |
| 43-9021 | Data Entry Keyers | Health IT Data Entry | 190 | 79 | 50 | 41 | 90 |
| 31-9092 | Medical Assistants | Medical Assistants | 115 | 66 | 39 | 137 | 89 |
| 11-9111 | Medical & Health Services Managers | CEO/Administrator | 111 | 108 | 80 | 22 | 80 |
| 29-1127 | Speech-Language Pathologists | | 79 | 111 | 70 | 55 | 79 |
| 31-9091 | Dental Assistants | | 78 | 52 | 24 | 39 | 48 |
| 29-2034 | Radiologic Technologists & Technicians | | 58 | 64 | 26 | 40 | 47 |
| 29-1031 | Dietitians & Nutritionists | | 100 | 32 | 25 | 23 | 45 |
| 29-1125 | Recreational Therapists | | 43 | 75 | 49 | 10 | 44 |
| 29-1062 | Family & General Practitioners | Family & General Medicine | 9 | 87 | 16 | 65 | 44 |
| 29-1069 | Physicians & Surgeons, All Other | Neurologist | 52 | 44 | 65 | 14 | 44 |
| 31-2022 | Physical Therapist Aides | | 49 | 66 | 43 | 3 | 40 |
| 29-2052 | Pharmacy Technicians | | 42 | 52 | 23 | 34 | 38 |
| 29-2051 | Dietetic Technicians | | 61 | 21 | 41 | 11 | 33 |
| 29-2032 | Diagnostic Medical Sonographers | | 43 | 50 | 20 | 15 | 32 |
| 31-2011 | Occupational Therapist Assistants | | 42 | 38 | 16 | 18 | 29 |
| 29-2012 | Medical & Clinical Laboratory Technicians | | 60 | 22 | 9 | 22 | 28 |
| 29-2055 | Surgical Technologists | | 34 | 11 | 16 | 46 | 27 |
| 29-1126 | Respiratory Therapists | | 24 | 30 | 19 | 33 | 26 |
| 29-1129 | Therapists, All Other | | 92 | 7 | 4 | 1 | 26 |
| 43-3021 | Billing & Posting Clerks & Machine Operators | Billing/Reimbursement Personnel | 64 | 22 | 16 | 1 | 26 |
| 29-2033 | Nuclear Medicine Technologists | | 80 | 10 | 5 | 7 | 25 |
| 31-1011 | Home Health Aides | Home Health Aides | 12 | 13 | 37 | 38 | 25 |
| 31-2021 | Physical Therapist Assistants | | 6 | 19 | 18 | 50 | 23 |
| 21-1011 | Substance Abuse & Behavioral Disorder Counselors | Substance Abuse Counselors | 26 | 29 | 22 | 15 | 23 |
| 29-1199 | Health Diagnosing & Treating Practitioners, All Other | | 39 | 26 | 20 | 5 | 23 |
| 29-1071 | Physician Assistants | Physician Assistants | 26 | 25 | 19 | 21 | 22 |
| 31-9096 | Veterinary Assistants & Laboratory Animal Caretakers | | 65 | 10 | 1 | 1 | 19 |
| 29-1067 | Surgeons | | 7 | 8 | 18 | 39 | 18 |

ATTACHMENT III

Occupations ranked by Advertised Job Openings, State of Hawaii

| SOC Code/Occupation Title | | Healthcare Occupations (from Skill Panels) | 2007* | 2008 | 2009 | 2010 | Average |
|---------------------------|---|---|-------|------|------|------|---------|
| 29-2021 | Dental Hygienists | Dental Hygienists | 17 | 30 | 8 | 16 | 18 |
| 31-9011 | Massage Therapists | | 14 | 28 | 12 | 16 | 17 |
| 29-2011 | Medical & Clinical Laboratory Technologists | | 6 | 23 | 10 | 27 | 17 |
| 29-2031 | Cardiovascular Technologists & Technicians | | 19 | 17 | 12 | 11 | 15 |
| 21-1022 | Medical & Public Health Social Workers | Social Worker | 11 | 26 | 17 | 3 | 14 |
| 29-1063 | Internists, General | Internal Medicine | 17 | 19 | 7 | 13 | 14 |
| 21-1014 | Mental Health Counselors | Mental Health Counselor | 19 | 23 | 8 | 4 | 14 |
| 31-1013 | Psychiatric Aides | | 11 | 19 | 7 | 10 | 12 |
| 29-9011 | Occupational Health & Safety Specialists | | 10 | 21 | 6 | 8 | 11 |
| 21-1091 | Health Educators | Community Health worker | 16 | 13 | 5 | 8 | 11 |
| 29-2041 | Emergency Medical Technicians & Paramedics | | 17 | 11 | 5 | 6 | 10 |
| 31-9094 | Medical Transcriptionists | | 17 | 10 | 6 | 5 | 10 |
| 29-1064 | Obstetricians & Gynecologists | Obstetricians & Gynecologists | 14 | 11 | 10 | 4 | 9 |
| 29-1066 | Psychiatrists | | 10 | 13 | 8 | 4 | 9 |
| 29-1061 | Anesthesiologists | | 6 | 10 | 10 | 7 | 8 |
| 29-1021 | Dentists, General | Pedodontist | 5 | 14 | 5 | 7 | 8 |
| 19-3031 | Clinical, Counseling, & School Psychologists | Psychologists | 10 | 8 | 9 | 3 | 8 |
| 29-1131 | Veterinarians | | 7 | 11 | 4 | 3 | 6 |
| 31-9099 | Healthcare Support Workers, All Other | | 9 | 8 | 2 | 5 | 6 |
| 29-2099 | Health Technologists & Technicians, All Other | | 6 | 6 | 6 | 2 | 5 |
| 29-2081 | Opticians, Dispensing | | 6 | 6 | 2 | 4 | 4 |
| 29-2056 | Veterinary Technologists & Technicians | | 5 | 7 | 2 | 2 | 4 |
| 29-1041 | Optometrists | | 7 | 5 | 2 | 1 | 4 |
| 29-9091 | Athletic Trainers | | 4 | 4 | 3 | 3 | 4 |
| 29-1065 | Pediatricians, General | Pediatrician | 3 | 5 | 3 | 3 | 3 |
| 43-9111 | Statistical Assistants | Health IT Data Analysis | 0 | 1 | 5 | 5 | 3 |
| 29-1011 | Chiropractors | | 1 | 3 | 5 | 1 | 3 |
| 29-9012 | Occupational Health & Safety Technicians | | 0 | 0 | 8 | 2 | 2 |
| 31-9095 | Pharmacy Aides | | 1 | 3 | 0 | 4 | 2 |
| 31-2012 | Occupational Therapist Aides | | 2 | 2 | 1 | 2 | 2 |
| 29-1029 | Dentists, All Other Specialists | | 0 | 0 | 0 | 0 | 0 |
| 29-9099 | Healthcare Practitioners & Technical Workers, All Other | | 0 | 0 | 0 | 0 | 0 |

*Advertised Openings are from May to December 2007

ATTACHMENT III

Occupations ranked by Advertised Job Openings, Honolulu MSA

| SOC Code/Occupation Title | | Healthcare Occupations (from Skill Panels) | 2007* | 2008 | 2009 | 2010 | Average |
|---------------------------|---|--|-------|-------|-------|------|---------|
| 29-1111 | Registered Nurses | Nurse Practitioner, RN, APRN, Nurse Manager | 1,951 | 1,683 | 1,064 | 861 | 1,390 |
| 31-1012 | Nursing Aides, Orderlies, & Attendants | Certified Nurse Asst (CNA), Patient Care Tech. (PCT) | 294 | 173 | 224 | 142 | 208 |
| 29-1123 | Physical Therapists | Physical Therapists | 203 | 276 | 182 | 163 | 206 |
| 29-2061 | Licensed Practical & Licensed Vocational Nurses | | 191 | 171 | 190 | 86 | 159 |
| 29-1122 | Occupational Therapists | | 144 | 191 | 98 | 87 | 130 |
| 31-9093 | Medical Equipment Preparers | | 116 | 329 | 67 | 6 | 129 |
| 29-2071 | Medical Records & Health Information Technicians | Medical Coder | 179 | 160 | 100 | 41 | 120 |
| 21-1023 | Mental Health & Substance Abuse Social Workers | Community Case Manager | 91 | 252 | 61 | 20 | 106 |
| 29-1051 | Pharmacists | Pharmacists | 116 | 132 | 55 | 43 | 86 |
| 43-9021 | Data Entry Keyers | Health IT Data Entry | 167 | 67 | 29 | 35 | 74 |
| 31-9092 | Medical Assistants | Medical Assistants | 100 | 47 | 31 | 111 | 72 |
| 11-9111 | Medical & Health Services Managers | CEO/Administrator | 99 | 96 | 68 | 18 | 70 |
| 29-1127 | Speech-Language Pathologists | | 49 | 94 | 41 | 34 | 55 |
| 31-9091 | Dental Assistants | | 72 | 46 | 22 | 33 | 43 |
| 29-1031 | Dietitians & Nutritionists | | 90 | 22 | 17 | 20 | 37 |
| 29-2034 | Radiologic Technologists & Technicians | | 45 | 42 | 17 | 30 | 33 |
| 29-1125 | Recreational Therapists | | 30 | 59 | 32 | 4 | 31 |
| 29-1069 | Physicians & Surgeons, All Other | Neurologist | 45 | 35 | 38 | 5 | 31 |
| 29-1062 | Family & General Practitioners | Family & General Medicine | 7 | 64 | 9 | 40 | 30 |
| 29-2052 | Pharmacy Technicians | | 33 | 40 | 18 | 25 | 29 |
| 29-2032 | Diagnostic Medical Sonographers | | 32 | 43 | 14 | 9 | 24 |
| 31-2022 | Physical Therapist Aides | | 27 | 47 | 22 | 2 | 24 |
| 29-1129 | Therapists, All Other | | 83 | 5 | 4 | 1 | 23 |
| 43-3021 | Billing & Posting Clerks & Machine Operators | Billing/Reimbursement Personnel | 59 | 20 | 13 | 1 | 23 |
| 29-2012 | Medical & Clinical Laboratory Technicians | | 50 | 15 | 8 | 18 | 23 |
| 29-1126 | Respiratory Therapists | | 19 | 26 | 15 | 30 | 22 |
| 29-2055 | Surgical Technologists | | 30 | 9 | 14 | 37 | 22 |
| 29-2033 | Nuclear Medicine Technologists | | 69 | 8 | 5 | 7 | 22 |
| 31-9096 | Veterinary Assistants & Laboratory Animal Caretakers | | 55 | 3 | | 1 | 20 |
| 21-1011 | Substance Abuse & Behavioral Disorder Counselors | Substance Abuse Counselors | 20 | 24 | 13 | 11 | 17 |
| 31-2021 | Physical Therapist Assistants | | 3 | 16 | 13 | 35 | 17 |
| 31-1011 | Home Health Aides | Home Health Aides | 7 | 9 | 20 | 30 | 16 |
| 29-1071 | Physician Assistants | Physician Assistants | 20 | 18 | 12 | 14 | 16 |
| 29-2051 | Dietetic Technicians | | 28 | 7 | 24 | 4 | 15 |
| 29-1199 | Health Diagnosing & Treating Practitioners, All Other | | 32 | 13 | 13 | 2 | 15 |
| 29-2021 | Dental Hygienists | Dental Hygienists | 12 | 26 | 6 | 13 | 14 |
| 29-2011 | Medical & Clinical Laboratory Technologists | | 6 | 21 | 7 | 22 | 14 |

ATTACHMENT III

Occupations ranked by Advertised Job Openings, Honolulu MSA

| SOC Code/Occupation Title | | Healthcare Occupations (from Skill Panels) | 2007* | 2008 | 2009 | 2010 | Average |
|---------------------------|--|---|-------|------|------|------|---------|
| 29-1067 | Surgeons | | 5 | 4 | 12 | 33 | 13 |
| 31-2011 | Occupational Therapist Assistants | | 8 | 20 | 10 | 16 | 13 |
| 31-9011 | Massage Therapists | | 8 | 21 | 11 | 10 | 12 |
| 21-1022 | Medical & Public Health Social Workers | Social Worker | 10 | 22 | 14 | 2 | 12 |
| 29-2031 | Cardiovascular Technologists & Technicians | | 13 | 11 | 7 | 7 | 10 |
| 21-1014 | Mental Health Counselors | Mental Health Counselor | 13 | 18 | 6 | 1 | 9 |
| 21-1091 | Health Educators | Community Health worker | 13 | 11 | 4 | 7 | 9 |
| 29-9011 | Occupational Health & Safety Specialists | | 9 | 13 | 6 | 6 | 8 |
| 29-2041 | Emergency Medical Technicians & Paramedics | | 15 | 9 | 4 | 4 | 8 |
| 29-1063 | Internists, General | Internal Medicine | 13 | 7 | 4 | 7 | 8 |
| 31-1013 | Psychiatric Aides | | 9 | 17 | 3 | 2 | 8 |
| 29-1066 | Psychiatrists | | 10 | 9 | 5 | 3 | 7 |
| 29-1021 | Dentists, General | Pedodontist | 2 | 11 | 3 | 4 | 5 |
| 29-9012 | Occupational Health & Safety Technicians | | | | 8 | 2 | 5 |
| 31-9094 | Medical Transcriptionists | | 7 | 5 | 3 | 3 | 5 |
| 31-9099 | Healthcare Support Workers, All Other | | 8 | 4 | 2 | 3 | 4 |
| 29-1061 | Anesthesiologists | | 3 | 4 | 4 | 5 | 4 |
| 29-1041 | Optometrists | | 7 | 5 | 2 | 1 | 4 |
| 29-1131 | Veterinarians | | 3 | 5 | 2 | 3 | 3 |
| 29-2099 | Health Technologists & Technicians, All Other | | 3 | 4 | 3 | 2 | 3 |
| 29-9091 | Athletic Trainers | | 4 | 3 | 2 | 2 | 3 |
| 29-2056 | Veterinary Technologists & Technicians | | 5 | 3 | 1 | 1 | 3 |
| 29-2081 | Opticians, Dispensing | | 3 | 4 | 1 | 2 | 2 |
| 29-1064 | Obstetricians & Gynecologists | Obstetricians & Gynecologists | 5 | 3 | 2 | 1 | 2 |
| 43-9111 | Statistical Assistants | Health IT Data Analysis | | 1 | 3 | 3 | 2 |
| 29-1065 | Pediatricians, General | Pediatrician | 2 | 4 | 2 | 2 | 2 |
| 19-3031 | Clinical, Counseling, & School Psychologists | Psychologists | 2 | | | | 2 |
| 29-1011 | Chiropractors | | 1 | 1 | 2 | | 1 |
| 31-2012 | Occupational Therapist Aides | | 2 | 1 | 1 | 1 | 1 |
| 31-9095 | Pharmacy Aides | | 1 | | | 1 | 1 |
| 29-1029 | Dentists, All Other Specialists | | | | | | |
| 29-9099 | Healthcare Practitioners & Technical Workers, All Other | | | | | | |

*Advertised openings are from May to December 2007

ATTACHMENT III

Occupations ranked by Advertised Job Openings, Hawaii County

| SOC Code/Occupation Title | | Healthcare Occupations (from Skill Panels) | 2007* | 2008 | 2009 | 2010 | Average |
|---------------------------|--|---|-------|------|------|------|---------|
| 29-1111 | Registered Nurses | Nurse Practitioner, RN, APRN, Nurse Manager | 114 | 187 | 131 | 79 | 128 |
| 29-1123 | Physical Therapists | Physical Therapists | 43 | 65 | 51 | 13 | 43 |
| 29-1122 | Occupational Therapists | | 31 | 51 | 47 | 12 | 35 |
| 29-1127 | Speech-Language Pathologists | | 28 | 16 | 28 | 19 | 22 |
| 29-1051 | Pharmacists | Pharmacists | 14 | 30 | 31 | 15 | 22 |
| 29-2061 | Licensed Practical & Licensed Vocational Nurses | | 21 | 33 | 8 | 13 | 19 |
| 31-2022 | Physical Therapist Aides | | 20 | 17 | 21 | 1 | 15 |
| 31-2011 | Occupational Therapist Assistants | | 25 | 19 | 6 | 3 | 13 |
| 31-9093 | Medical Equipment Preparers | | 5 | 29 | 1 | | 12 |
| 29-2071 | Medical Records & Health Information Technicians | Medical Coder | 11 | 12 | 10 | 5 | 9 |
| 29-1125 | Recreational Therapists | | 11 | 9 | 13 | 2 | 9 |
| 43-9021 | Data Entry Keyers | Health IT Data Entry | 10 | 4 | 18 | 2 | 8 |
| 29-1069 | Physicians & Surgeons, All Other | Neurologist | 4 | 3 | 12 | 6 | 6 |
| 31-1012 | Nursing Aides, Orderlies, & Attendants | Certified Nurse Asst (CNA), Patient Care Tech. (PCT) | 8 | 8 | 3 | 5 | 6 |
| 29-1062 | Family & General Practitioners | Family & General Medicine | 1 | 7 | 2 | 13 | 6 |
| 29-2051 | Dietetic Technicians | | 8 | 2 | 7 | 4 | 5 |
| 11-9111 | Medical & Health Services Managers | CEO/Administrator | 6 | 6 | 6 | 2 | 5 |
| 29-2034 | Radiologic Technologists & Technicians | | 10 | 5 | 2 | 2 | 5 |
| 31-2021 | Physical Therapist Assistants | | 3 | 3 | 6 | 7 | 5 |
| 31-9092 | Medical Assistants | Medical Assistants | 2 | 5 | 2 | 8 | 4 |
| 21-1023 | Mental Health & Substance Abuse Social Workers | Community Case Manager | 3 | 6 | 2 | 3 | 4 |
| 31-9096 | Veterinary Assistants & Laboratory Animal Caretakers | | 5 | 2 | | | 3 |
| 29-1131 | Veterinarians | | 3 | 4 | | | 3 |
| 29-2032 | Diagnostic Medical Sonographers | | 4 | 3 | 3 | 3 | 3 |
| 29-1199 | Health Diagnosing & Treating Practitioners, All Other | | 2 | 6 | 2 | | 3 |
| 29-2052 | Pharmacy Technicians | | 2 | 4 | 2 | 4 | 3 |
| 21-1011 | Substance Abuse & Behavioral Disorder Counselors | Substance Abuse Counselors | 2 | 3 | 5 | 2 | 3 |
| 29-1126 | Respiratory Therapists | | 4 | 3 | 1 | | 3 |
| 29-1071 | Physician Assistants | Physician Assistants | | 2 | 4 | 2 | 3 |
| 29-1031 | Dietitians & Nutritionists | | 2 | 3 | 4 | 2 | 3 |
| 31-1011 | Home Health Aides | Home Health Aides | 2 | 1 | 4 | 3 | 2 |
| 29-1064 | Obstetricians & Gynecologists | Obstetricians & Gynecologists | | 3 | 3 | 1 | 2 |
| 31-9099 | Healthcare Support Workers, All Other | | 1 | 4 | | 2 | 2 |
| 29-1011 | Chiropractors | | | 2 | 2 | | 2 |
| 31-9011 | Massage Therapists | | 1 | 2 | | 3 | 2 |
| 29-1021 | Dentists, General | Pedodontist | 2 | 2 | 1 | 2 | 2 |
| 29-2041 | Emergency Medical Technicians & Paramedics | | 3 | 2 | 1 | 2 | 2 |

ATTACHMENT III

Occupations ranked by Advertised Job Openings, Hawaii County

| SOC Code/Occupation Title | | Healthcare Occupations (from Skill Panels) | 2007* | 2008 | 2009 | 2010 | Average |
|---------------------------|--|---|-------|------|------|------|---------|
| 29-1063 | Internists, General | Internal Medicine | 1 | 2 | 1 | 3 | 2 |
| 31-9094 | Medical Transcriptionists | | 2 | 2 | 1 | | 2 |
| 29-2033 | Nuclear Medicine Technologists | | 1 | 3 | | | 2 |
| 29-2099 | Health Technologists & Technicians, All Other | | | 2 | 2 | | 2 |
| 29-9011 | Occupational Health & Safety Specialists | | 1 | 3 | | 1 | 2 |
| 31-9091 | Dental Assistants | | 2 | 1 | | 2 | 2 |
| 31-9095 | Pharmacy Aides | | | 1 | | 2 | 2 |
| 21-1022 | Medical & Public Health Social Workers | Social Worker | 2 | 2 | 1 | | 2 |
| 29-1067 | Surgeons | | 1 | 1 | 2 | 2 | 1 |
| 29-1066 | Psychiatrists | | | 2 | 1 | 1 | 1 |
| 29-1061 | Anesthesiologists | | 2 | | 1 | 1 | 1 |
| 31-1013 | Psychiatric Aides | | | 1 | 1 | 2 | 1 |
| 29-2055 | Surgical Technologists | | 1 | 1 | 1 | 2 | 1 |
| 29-2021 | Dental Hygienists | Dental Hygienists | 1 | 2 | 1 | 1 | 1 |
| 21-1014 | Mental Health Counselors | Mental Health Counselor | 1 | 1 | 1 | 2 | 1 |
| 29-2031 | Cardiovascular Technologists & Technicians | | 1 | 1 | 1 | 1 | 1 |
| 19-3031 | Clinical, Counseling, & School Psychologists | Psychologists | 1 | | | | 1 |
| 21-1091 | Health Educators | Community Health worker | | 1 | 1 | | 1 |
| 29-2011 | Medical & Clinical Laboratory Technologists | | | 1 | | | 1 |
| 29-2012 | Medical & Clinical Laboratory Technicians | | 1 | 1 | 1 | 1 | 1 |
| 29-2056 | Veterinary Technologists & Technicians | | | | 1 | | 1 |
| 43-3021 | Billing & Posting Clerks & Machine Operators | Billing/Reimbursement Personnel | | 1 | 1 | | 1 |
| 43-9111 | Statistical Assistants | Health IT Data Analysis | | | 1 | 1 | 1 |
| 29-1029 | Dentists, All Other Specialists | | | | | | |
| 29-1041 | Optometrists | | | | | | |
| 29-1065 | Pediatricians, General | Pediatrician | | | | | |
| 29-1129 | Therapists, All Other | | | | | | |
| 29-2081 | Opticians, Dispensing | | | | | | |
| 29-9012 | Occupational Health & Safety Technicians | | | | | | |
| 29-9091 | Athletic Trainers | | | | | | |
| 29-9099 | Healthcare Practitioners & Technical Workers, All Other | | | | | | |
| 31-2012 | Occupational Therapist Aides | | | | | | |

*Advertised openings are from May to December 2007

ATTACHMENT III

| Occupations ranked by Advertised Job Openings, Maui County | | | | | | | |
|--|--|---|-------|------|------|------|---------|
| SOC Code/Occupation Title | | Healthcare Occupations (from Skill Panels) | 2007* | 2008 | 2009 | 2010 | Average |
| 29-1111 | Registered Nurses | Nurse Practitioner, RN, APRN, Nurse Manager | 80 | 162 | 82 | 43 | 92 |
| 29-2071 | Medical Records & Health Information Technicians | Medical Coder | 39 | 25 | 14 | 3 | 20 |
| 29-1123 | Physical Therapists | Physical Therapists | 8 | 15 | 36 | 10 | 17 |
| 29-2061 | Licensed Practical & Licensed Vocational Nurses | | 19 | 23 | 9 | 9 | 15 |
| 31-1012 | Nursing Aides, Orderlies, & Attendants | Certified Nurse Asst (CNA), Patient Care Tech. (PCT) | 14 | 10 | 13 | 5 | 11 |
| 29-2051 | Dietetic Technicians | | 14 | 7 | 6 | 2 | 7 |
| 19-3031 | Clinical, Counseling, & School Psychologists | Psychologists | 7 | 8 | 9 | 3 | 7 |
| 29-2034 | Radiologic Technologists & Technicians | | 2 | 13 | 5 | 5 | 6 |
| 29-1122 | Occupational Therapists | | 8 | 9 | 4 | 4 | 6 |
| 29-1062 | Family & General Practitioners | Family & General Medicine | 2 | 12 | 1 | 9 | 6 |
| 29-1051 | Pharmacists | Pharmacists | 6 | 9 | 5 | 4 | 6 |
| 29-2033 | Nuclear Medicine Technologists | | 6 | | | | 6 |
| 31-9092 | Medical Assistants | Medical Assistants | 3 | 6 | 1 | 9 | 5 |
| 29-1069 | Physicians & Surgeons, All Other | Neurologist | 2 | 4 | 8 | 3 | 4 |
| 29-1129 | Therapists, All Other | | 7 | 1 | | | 4 |
| 29-1125 | Recreational Therapists | | | 5 | 3 | 3 | 4 |
| 43-9021 | Data Entry Keyers | Health IT Data Entry | 7 | 3 | 2 | 3 | 4 |
| 29-1199 | Health Diagnosing & Treating Practitioners, All Other | | 2 | 5 | 5 | 3 | 4 |
| 29-1031 | Dietitians & Nutritionists | | 6 | 2 | 2 | | 4 |
| 29-1064 | Obstetricians & Gynecologists | Obstetricians & Gynecologists | | 2 | 5 | | 3 |
| 11-9111 | Medical & Health Services Managers | CEO/Administrator | 5 | 3 | 3 | 2 | 3 |
| 31-1013 | Psychiatric Aides | | 2 | 2 | 3 | 6 | 3 |
| 29-2012 | Medical & Clinical Laboratory Technicians | | 4 | | | 3 | 3 |
| 29-9011 | Occupational Health & Safety Specialists | | | 5 | | 1 | 3 |
| 29-2011 | Medical & Clinical Laboratory Technologists | | | 1 | 3 | 4 | 3 |
| 29-1071 | Physician Assistants | Physician Assistants | | 5 | 1 | 3 | 3 |
| 29-2052 | Pharmacy Technicians | | 3 | 4 | 2 | 2 | 3 |
| 29-2055 | Surgical Technologists | | | 1 | 2 | 5 | 3 |
| 31-9096 | Veterinary Assistants & Laboratory Animal Caretakers | | 3 | 2 | | | 2 |
| 31-1011 | Home Health Aides | Home Health Aides | 2 | 2 | 3 | 2 | 2 |
| 29-1061 | Anesthesiologists | | | 4 | 2 | 1 | 2 |
| 31-9011 | Massage Therapists | | 2 | 4 | | 2 | 2 |
| 21-1011 | Substance Abuse & Behavioral Disorder Counselors | Substance Abuse Counselors | 3 | 1 | 3 | 2 | 2 |
| 21-1023 | Mental Health & Substance Abuse Social Workers | Community Case Manager | 2 | 3 | 2 | 2 | 2 |
| 29-2099 | Health Technologists & Technicians, All Other | | 3 | | 1 | | 2 |

ATTACHMENT III

| Occupations ranked by Advertised Job Openings, Maui County | | | | | | | |
|--|--|---|-------|------|------|------|---------|
| SOC Code/Occupation Title | | Healthcare Occupations (from Skill Panels) | 2007* | 2008 | 2009 | 2010 | Average |
| 29-1066 | Psychiatrists | | | 2 | 2 | | 2 |
| 29-1063 | Internists, General | Internal Medicine | 1 | 5 | 1 | 1 | 2 |
| 31-2022 | Physical Therapist Aides | | 3 | 1 | | | 2 |
| 31-9093 | Medical Equipment Preparers | | | 2 | 1 | | 2 |
| 31-9091 | Dental Assistants | | 2 | 1 | 1 | 3 | 2 |
| 29-1131 | Veterinarians | | 1 | 2 | 2 | | 2 |
| 29-1067 | Surgeons | | 1 | 1 | 1 | 4 | 2 |
| 43-3021 | Billing & Posting Clerks & Machine Operators | Billing/Reimbursement Personnel | 2 | | 2 | | 2 |
| 21-1014 | Mental Health Counselors | Mental Health Counselor | 2 | 2 | 2 | 1 | 2 |
| 21-1022 | Medical & Public Health Social Workers | Social Worker | | 2 | | | 2 |
| 29-2032 | Diagnostic Medical Sonographers | | 1 | 1 | | 3 | 2 |
| 29-1126 | Respiratory Therapists | | 1 | | 2 | 2 | 2 |
| 31-9095 | Pharmacy Aides | | | 2 | | 1 | 2 |
| 29-2021 | Dental Hygienists | Dental Hygienists | 2 | 2 | | 1 | 1 |
| 29-2081 | Opticians, Dispensing | | 2 | 1 | 1 | 1 | 1 |
| 21-1091 | Health Educators | Community Health worker | 1 | | | | 1 |
| 29-2056 | Veterinary Technologists & Technicians | | | 1 | | | 1 |
| 29-2031 | Cardiovascular Technologists & Technicians | | | | 1 | 1 | 1 |
| 29-1021 | Dentists, General | Pedodontist | | 2 | 1 | 1 | 1 |
| 29-9091 | Athletic Trainers | | | 1 | 1 | 1 | 1 |
| 29-1127 | Speech-Language Pathologists | | 1 | 1 | 1 | 1 | 1 |
| 31-9094 | Medical Transcriptionists | | 1 | 1 | 1 | 1 | 1 |
| 29-1011 | Chiropractors | | | | 1 | 1 | 1 |
| 31-2012 | Occupational Therapist Aides | | | 1 | | 1 | 1 |
| 29-1029 | Dentists, All Other Specialists | | | | | | |
| 29-1041 | Optometrists | | | | | | |
| 29-1065 | Pediatricians, General | Pediatrician | | | | | |
| 29-2041 | Emergency Medical Technicians & Paramedics | | | | | | |
| 29-9012 | Occupational Health & Safety Technicians | | | | | | |
| 29-9099 | Healthcare Practitioners & Technical Workers, All Other | | | | | | |
| 31-2011 | Occupational Therapist Assistants | | | | | | |
| 31-2021 | Physical Therapist Assistants | | | | | | |
| 31-9099 | Healthcare Support Workers, All Other | | | | | | |
| 43-9111 | Statistical Assistants | Health IT Data Analysis | | | | | |

*Advertised openings are from May to December 2007

ATTACHMENT III

| Occupations ranked by Advertised Job Openings, Kauai County | | | | | | | |
|---|--|---|-------|------|------|------|---------|
| SOC Code/Occupation Title | | Healthcare Occupations (from Skill Panels) | 2007* | 2008 | 2009 | 2010 | Average |
| 29-1111 | Registered Nurses | Nurse Practitioner, RN, APRN, Nurse Manager | 137 | 105 | 66 | 37 | 86 |
| 29-2071 | Medical Records & Health Information Technicians | Medical Coder | 34 | 34 | 7 | 2 | 19 |
| 29-1051 | Pharmacists | Pharmacists | 23 | 29 | 9 | 4 | 16 |
| 31-1012 | Nursing Aides, Orderlies, & Attendants | Certified Nurse Asst (CNA), Patient Care Tech. (PCT) | 20 | 11 | 10 | 5 | 11 |
| 29-1123 | Physical Therapists | Physical Therapists | 10 | 16 | 7 | 7 | 10 |
| 29-2061 | Licensed Practical & Licensed Vocational Nurses | | 14 | 15 | 3 | 7 | 10 |
| 31-2011 | Occupational Therapist Assistants | | 10 | | | | 10 |
| 31-9093 | Medical Equipment Preparers | | 9 | 24 | 2 | 1 | 9 |
| 31-9092 | Medical Assistants | Medical Assistants | 10 | 9 | 5 | 8 | 8 |
| 31-2021 | Physical Therapist Assistants | | | | | 8 | 8 |
| 29-2012 | Medical & Clinical Laboratory Technicians | | 6 | 6 | | | 6 |
| 29-2051 | Dietetic Technicians | | 12 | 6 | 4 | 1 | 6 |
| 29-2033 | Nuclear Medicine Technologists | | 4 | | | | 4 |
| 31-1011 | Home Health Aides | Home Health Aides | 1 | 1 | 10 | 3 | 4 |
| 29-1064 | Obstetricians & Gynecologists | Obstetricians & Gynecologists | 9 | 3 | 1 | 1 | 4 |
| 43-9021 | Data Entry Keyers | Health IT Data Entry | 6 | 5 | 2 | 2 | 3 |
| 29-1069 | Physicians & Surgeons, All Other | Neurologist | 2 | 1 | 7 | | 3 |
| 29-2032 | Diagnostic Medical Sonographers | | 7 | 2 | 3 | 1 | 3 |
| 29-2052 | Pharmacy Technicians | | 4 | 5 | 1 | 3 | 3 |
| 29-1062 | Family & General Practitioners | Family & General Medicine | | 4 | 3 | 2 | 3 |
| 29-2031 | Cardiovascular Technologists & Technicians | | 4 | 5 | 2 | 2 | 3 |
| 29-1071 | Physician Assistants | Physician Assistants | 6 | | 1 | 3 | 3 |
| 21-1014 | Mental Health Counselors | Mental Health Counselor | 4 | 2 | | | 3 |
| 31-9094 | Medical Transcriptionists | | 7 | 2 | 1 | 1 | 3 |
| 29-1031 | Dietitians & Nutritionists | | 2 | 5 | 2 | 1 | 3 |
| 29-2034 | Radiologic Technologists & Technicians | | 2 | 4 | 2 | 2 | 3 |
| 11-9111 | Medical & Health Services Managers | CEO/Administrator | 2 | 2 | 3 | | 3 |
| 29-2055 | Surgical Technologists | | 3 | | | 2 | 3 |
| 29-1063 | Internists, General | Internal Medicine | 2 | 5 | 1 | 1 | 2 |
| 31-9091 | Dental Assistants | | 3 | 4 | 1 | 2 | 2 |
| 29-1199 | Health Diagnosing & Treating Practitioners, All Other | | 3 | 3 | 1 | | 2 |
| 29-1067 | Surgeons | | | 2 | 3 | 1 | 2 |
| 29-1061 | Anesthesiologists | | 2 | 2 | 2 | | 2 |
| 31-9096 | Veterinary Assistants & Laboratory Animal Caretakers | | 3 | 2 | 1 | | 2 |
| 21-1011 | Substance Abuse & Behavioral Disorder Counselors | Substance Abuse Counselors | 2 | 1 | 2 | | 2 |
| 31-9011 | Massage Therapists | | 3 | 1 | 1 | 2 | 2 |

ATTACHMENT III

Occupations ranked by Advertised Job Openings, Kauai County

| SOC Code/Occupation Title | | Healthcare Occupations (from Skill Panels) | 2007* | 2008 | 2009 | 2010 | Average |
|---------------------------|---|---|-------|------|------|------|---------|
| 43-3021 | Billing & Posting Clerks & Machine Operators | Billing/Reimbursement Personnel | 3 | 1 | | | 2 |
| 29-1129 | Therapists, All Other | | 2 | 1 | | | 2 |
| 29-1126 | Respiratory Therapists | | | | 2 | 1 | 2 |
| 29-2056 | Veterinary Technologists & Technicians | | | 2 | | 1 | 2 |
| 29-1125 | Recreational Therapists | | 2 | 2 | 1 | 1 | 2 |
| 29-1122 | Occupational Therapists | | 1 | 1 | 1 | 3 | 2 |
| 21-1022 | Medical & Public Health Social Workers | Social Worker | | | 2 | 1 | 2 |
| 21-1023 | Mental Health & Substance Abuse Social Workers | Community Case Manager | 1 | 1 | | 2 | 1 |
| 43-9111 | Statistical Assistants | Health IT Data Analysis | | | 2 | 1 | 1 |
| 29-2021 | Dental Hygienists | Dental Hygienists | 2 | 1 | 1 | 1 | 1 |
| 29-1127 | Speech-Language Pathologists | | 1 | | | 2 | 1 |
| 21-1091 | Health Educators | Community Health worker | 2 | 1 | | 1 | 1 |
| 29-2081 | Opticians, Dispensing | | 1 | | | 1 | 1 |
| 29-1065 | Pediatricians, General | Pediatrician | 1 | 1 | 1 | 1 | 1 |
| 29-2011 | Medical & Clinical Laboratory Technologists | | | | | 1 | 1 |
| 31-2022 | Physical Therapist Aides | | | 1 | | | 1 |
| 19-3031 | Clinical, Counseling, & School Psychologists | Psychologists | | | | | |
| 29-1011 | Chiropractors | | | | | | |
| 29-1021 | Dentists, General | Pedodontist | | | | | |
| 29-1029 | Dentists, All Other Specialists | | | | | | |
| 29-1041 | Optometrists | | | | | | |
| 29-1066 | Psychiatrists | | | | | | |
| 29-1131 | Veterinarians | | | | | | |
| 29-2041 | Emergency Medical Technicians & Paramedics | | | | | | |
| 29-2099 | Health Technologists & Technicians, All Other | | | | | | |
| 29-9011 | Occupational Health & Safety Specialists | | | | | | |
| 29-9012 | Occupational Health & Safety Technicians | | | | | | |
| 29-9091 | Athletic Trainers | | | | | | |
| 29-9099 | Healthcare Practitioners & Technical Workers, All Other | | | | | | |
| 31-1013 | Psychiatric Aides | | | | | | |
| 31-2012 | Occupational Therapist Aides | | | | | | |
| 31-9095 | Pharmacy Aides | | | | | | |
| 31-9099 | Healthcare Support Workers, All Other | | | | | | |

*Advertised openings are from May to December 2007





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