



Hawai'i State Center for Nursing

NURSING EDUCATION PROGRAMS 2010-11

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Introduction

Nursing is the top healthcare occupation in terms of employment growth with an expected twenty-six percent increase in demand for registered nurses over the next decade. (Bureau of Labor Statistics, 2012) Factors driving the increase in demand for nurses include population growth, aging of our population and health care reform. However, a significant barrier in meeting the demand for nurses will be the loss of Baby Boomer nurses expected to retire and exit the workforce over the next decade. The loss of nursing faculty will particularly be felt in the tertiary education sector where 62% of full time faculty are 51 years or older. (AACN, 2012b) Approximately two-thirds of nursing schools offering baccalaureate programs have identified faculty shortages as a reason for not accepting all qualified applicants. (AACN, 2012a) Thus, creating a paradox exacerbating difficulties in filling faculty vacancies and compounding the negative impact on enrollment of qualified applicants into nursing programs because of the lack of qualified teaching faculty. (National Advisory Council on Nurse Education and Practice, 2010)

Annually, the Hawaii State Center for Nursing surveys nursing education programs for the purpose of collecting data to track and trend applicant rates, enrollments, student and faculty demographics, and faculty vacancy rates to inform workforce planning and policy at the state and regional levels.

Nine nursing education programs exist in the State of Hawaii. Three are private institutions and six are part of the University of Hawaii public system. Nursing programs are located on the islands of Oahu, Maui, Hawaii, and Kauai. The University of Hawaii System, School of Nursing and Dental Hygiene, Nursing in the College of Arts and Sciences Hilo and four Community Colleges, approves the maximum number of pre-licensure students that may be enrolled (i.e., admission slots) in programs that offer a licensed practical nursing (LPN) diploma or certificate, an associate's degree in nursing (AS), a bachelor of science in nursing (BS in Nursing), or master's entry program in nursing (MEPN). Private institutions have unlimited admission slots. However, all programs have difficulty filling admission slots if they lack teaching faculty, facilities, or clinical placement sites to support the number of admission slots. They also may not fill admission slots if there are fewer qualified applicants, or if admitted applicants do not enroll because of financial or personal reasons or acceptance to another educational program.

In 2010-11, Hawaii's nursing programs continued to turn away qualified applicants from the LPN programs 57% (66), Ladder LPN to AS programs 49% (146), Associate Degree (AS) programs 68% (390) and 18% (109) Bachelor's Degree (BS) programs. Qualified applicants turned away from graduates programs included 66% (97) from the MEPN, 13% (9) Master's in Nursing clinical track, and 37% (7) PhD programs.

Nursing programs capacity to accept students is determined by the availability of faculty, facilities, and clinical placement opportunities. Our survey findings reveal:

- Racial/ethnic maldistribution of faculty to student population with a distribution of faculty being Caucasian, Asian American, and Native Hawaiian/Pacific Islander.
- Sixty-six percent of full-time faculty members are older than 50 years.
- Vacancy rates for full-time faculty positions in nursing were 7% and 8% for part time adjunct faculty positions.

When asked about issues of concern for their nursing program, survey respondents frequently reported ongoing difficulties in filling full-time faculty positions, the lack of clinical sites for student placements and faculty for clinical placements. Of the nine nursing programs surveyed:

• 56% reported difficulty filling full-time faculty positions with a particular emphasis on specialty areas; medical/surgical, pediatrics, and mental health.

Nursing programs across the state continue to seek innovative ways to address factors limiting their educational capacity. The University of Hawaii introduced the statewide nursing consortium in fall 2010. The undergraduate nursing programs at UH Manoa, Maui and Kauai utilize a redesigned nursing curriculum and learning strategies to increase students' educational flexibility and accessibility. Other initiatives such as the expanded use of simulation across the state aid in alleviating some of the issues concerning lack of faculty in clinical settings and accessibility of clinical placement sites.

An online Centralized Clinical Placement System (CCPS) was implemented in the Fall of 2011. CCPS enhances the availability of clinical sites and improves educational capacity. The organizational partnership includes Chaminade University, Hawaii Pacific University, Kapiolani Community College, University of Hawaii at Manoa, University of Phoenix, Castle Medical Center, Hawaii Pacific Health (Kapiolani Medical Center for Women & Children, Pali Momi Medical Center, and Straub Clinic and Hospital), Kaiser Permanente Hawaii, The Queen's Medical Center and Tripler Army Medical Center.

Types of Nursing Program

There are a variety of ways to obtain a nursing certificate or degree in Hawaii. Program respondents were asked to classify the type of nursing education programs offered by their institution according to the definitions used in Table 1.

Many of the educational institutions surveyed offer more than one type of nursing education program, survey respondents were asked to mark all that apply. A single education institution may be counted multiple times in Table 1. For example, one institution may be counted in the number of LPN programs, ladder programs, and LPN to AS programs if it offers the opportunity to complete curriculum requirements through each of these types of programs. Similarly, a single education institution may be counted in the BS programs, the LPN to BS programs, and the RN to BS programs if each of these options is available.

A count of the institutions offering programs within each of the major program classifications (i.e., LPN, AS, BS, MSN, and PhD) show that during the 2009-2010 school year,

- Four institutions offered some form of licensed practical nursing (LPN) program (a LPN program and/or a ladder program),
- Two institutions offered licensed practical nursing (LPN) program to bachelor of science in nursing (BS) program,
- Four institutions offered some form of program that awards an associate's degree in nursing (AS),
- Four institutions offered some form of a bachelor of science in nursing (BS) program,
- One institution offered a master's entry program in nursing
- Three institutions offered some form of a master's degree in nursing (MS) program, and
- One institution offered a PhD in nursing.

Survey respondents were asked if their institution offered a certificate program beyond a baccalaureate or master's degree in any of the areas below. The data revealed;

- Two institutions offered certificate programs in advanced practice (nurse practitioner and clinical nurse specialist), one institution offered a certificate program in nursing education, Two institutions offered a certificate program in nursing administration,
- None offered a certificate in clinical nurse specialist education, and
- None offered a certificate program in nursing informatics.

TABLE 1: NURSING PROGRAMS IN HAWAII BY LOCATION, 2010 – 2011

	Nursing programs
Non-Baccalaureate Programs	
Licensed Practical Nurse (LPN) – program requires at least one year of full-time coursework and awards a diploma or certificate of completion as a practical nurse.	Hawaii Community College
"Ladder" Program: Licensed Practical Nurse (LPN) combined with an Associate's degree in nursing (AS) – After completing one year or more of coursework, students meet requirements for licensure as a practical nurse; after completing additional years of coursework students are awarded an associate's degree in nursing.	Kauai Community CollegeMaui Community College
Licensed Practical Nurse (LPN) to AS – program admits LPNs and awards an associate's degree in nursing.	 Kapiolani Community College Maui Community College Kauai Community College
Associate's degree in nursing (AS) – program requires at least two academic years of full-time college coursework and awards an associate's degree in nursing.	Hawaii Community CollegeKapiolani Community College
Baccalaureate Programs	
Bachelor of science in nursing (BS) – Admits students with no previous nursing education and awards a bachelor of science degree in nursing; requires at least four academic years of college coursework.	 University of Hawaii at Hilo University of Hawaii at Manoa Hawaii Pacific University University of Phoenix Chaminade University
LPN to bachelor of science in nursing (BS) – Admits LPNs and awards a bachelor of science degree in nursing.	Hawaii Pacific University University of Phoenix
Registered Nurse (RN) to bachelor of science in nursing (BS) – Admits RNs and awards a bachelor of science degree in nursing.	 Hawaii Pacific University University of Hawaii at Hilo University of Hawaii at Manoa University of Phoenix
Accelerated BS – Admits students with a previous baccalaureate degree in another discipline and awards a BSN in an accelerated format.	
Master of Science Programs	
RN to MSN – Admits RNs and awards a master of science in nursing.	 Hawaii Pacific University University of Hawaii at Manoa
BS to MSN – Admits only students with a BS and awards a master of science in nursing.	 University of Hawaii at Manoa University of Phoenix
Master's Entry Program in Nursing	
MEPN – Admits students with no prior nursing experience or education and who have a baccalaureate degree or higher in a field other than nursing.	University of Hawaii at Manoa
Doctoral Programs	
MS to PhD – Admits students who have an MSN or MS in a health related field; confers a doctor of philosophy (nursing).	University of Hawaii at Manoa

Program Capacity, Applications, & Enrollment

Hawaii's public University of Hawaii system School of Nursing & Dental Hygiene (SONDH), and Community Colleges determine the maximum number of students that may be enrolled (i.e., admission slots) in programs that offer a LPN diploma or certificate, an AS, a BS for pre-licensure students i.e., students who are not already licensed as a registered nurse (RN), and PhD. The UH system currently sets limits for slots in the Master of Nursing program. Private institutions continue to report having no limits set for admission slots available in all programs.

Licensed Practical Nurse Programs

Student Enrolment and Admission Slots

Table 2 identifies that 56.9% (66) of LPN program qualified applicants and 61.6% (183) of Ladder program qualified applicants were not enrolled.

As shown in Table 2, public institutions reported 50 admission slots for LPN students during 2010 - 2011. An additional 164 admission slots were approved for students entering a ladder program, which combines a LPN program with an AS program. Fifty (100%) students were reported to be newly enrolled in the LPN program and 114 (69.5%) in the ladder programs. Overall, none of the admission slots for the LPN program and 50 (30.5%) of the admission slots for the Ladder programs were unfilled.

TABLE 2: LPN AND LADDER PROGRAMS APPLICATIONS, CAPACITY, AND ENROLLMENT FOR 2010-2011

	LPN programs	Ladder programs
Number of admission slots		
Public	50	164
Private	Not limited	Not limited
Number of applicants	116	363
Number of applicants meeting minimum admission requirements	116	297
Number of students newly enrolled (admitted during 2009 -2010 and began classes)	50	114
Number of qualified applicants not enrolled	66	183
Number of unfilled slots		
Public	0	50

Graduates in the LPN Programs

During the 2010 – 2011 school year an estimated 124 (96 of these students completed the LPN portion of their ladder program) graduated from the LPN programs.

LPN Student Demographics

LPN programs continue to show a high percentage of students are Filipino (31%) and Caucasian (25%) and predominantly over the age of 25.

Table 3: Demographic Characteristics of LPN Nursing Students in the LPN and Ladder Programs, 2010-2011

	LPN Students
Gender:	Number (%)
Female	131 (87.9%)
Male	18 (12.1%)
Gender (Total)	149 (100%)
Race/Ethnicity:	
African-American	2 (1.5%)
Caucasian	35 (26.9%)
Asian (break out)	68 (52.3%)
Chinese	3
Filipino	43
Japanese	12
Korean	6
Other Asian	3
Native Hawaiian	6 (4.6%)
Pacific Islander (break out)	2 (1.5%)
Samoan	0
Other Pacific Islander	2
American Indian/Native Alaskan	0
2 or more races	10 (7.7%)
Other Race	-
Hispanic	6 (4.6%)
Missing/unknown	1 (.8%)
Race/Ethnicity (Total)	130 (87.2%)
Age:	
≤ 20	7 (6.1%)
21-25	30 (26.1%)
26-30	24 (20.9%)
31-40	26 (22.6%)
41-50	12 (10.4%)
51-60	16 (13.9%)
≥ 60	0 (0%)
Age (Total)	115 (77.2%)

Registered Nurse Programs

Student Enrolment and Admission Slots

Table 4 indicates that 68% (391) of qualified applicants for the AS programs were not enrolled. 20% (125) of qualified applicants for pre-licensed BS programs were not enrolled.

TABLE 4: AS & BS PROGRAMS APPLICANTS, CAPACITY, AND ENROLLMENT FOR 2010 - 2011

	AS in Nursing Programs	BS in Nursing Programs	RN to BS in Nursing Programs
Number of applicants	690	1,315	21
Number of applicants meeting minimum admission requirements	575	622	21
Number of qualified applicants not enrolled	391	125	6
Number of admission slots			
Public	195	162	20
Private		n/a	n/a*
Number of students newly enrolled (admitted during 2009 –			
2010 and began classes)			
Public	184	162	7
Private	n/a*	335	8
Number of unfilled slots			
Public	11**	0	5

^{*}n/a = not applicable; #E= estimate; ++includes applicants who did not take up an offer to enroll

In 2010 - 11, one hundred ninety-five admission slots were available for students seeking an AS in public institutions and 184 (94.3%) were newly enrolled in the AS program (Table 4). Table 4 also shows an estimated 162 admission slots for pre-licensed students seeking a BS were available in the public system and 21 (100%) met admission requirements for RN to BS in 2010-11. 497 (100%) students were newly enrolled in the pre-licensed BS program and no slots in the BS programs went unfilled.

Graduates in AS in Nursing and BS in Nursing Programs

261 undergraduates received an AS in nursing. 101 (38.7%) of these graduates had completed the AS portion of their ladder program. 404 graduates received a BS degree in nursing. Out of this number, 15 (3.7%) of the graduates completed the RN to BS program.

AS in Nursing and BS in Nursing Student Demographics

Males continue to make up approximately 20% of the student population in registered nursing programs. Student distributions by race/ethnicity also show a higher number of Asian and Caucasian students across programs, with a strong Filipino rand Japanese representation in the AS and BS programs. In the undergraduate programs, the BS programs have the highest percentage of students under the age of 25 years. AS programs have a higher percentage of students over the age of 25 compared to the BS programs.

TABLE 5: STUDENT DEMOGRAPHICS REGISTERED NURSE PROGRAMS, 2010 -2011

	AS in Nursing Students	RN to BS in Nursing Students	BS in Nursing Students	RN Program Students Total
	Number (%)	Number (%)	Number (%)	Number (%)
Gender:				
Female	218 (77%)	27 (77%)	1,014(81%)	1,259 (80%)
Male	65 (23%)	8 (23%)	239(19%)	312 (20%)
Gender (Total)	283 (100%)	35 (85.4%)	1,253 (100%)	1,571 (100%)
Race/Ethnicity:				
African-American	1 (.4%)	0	19 (1.5%)	20 (1.3%)
Caucasian	83 (30.7%)	6 (14.6%)	195 (15.9%)	284 (18.4%)
Asian (break out)	96 (35.6%)	23 (56.1%)	729 (59.3%)	848 (55%)
Chinese	5	0	33	
Filipino	61	16	179	
Japanese	17	5	84	
Korean	6	1	13	
Other Asian	7	0	12	
Native Hawaiian	35 (13%)	5 (12.2%)	76 (6.2%)	116 (7.5%)
Pacific Islander (break out)	2 (.7%)	0 (%)	4 (.3%)	6 (0.4%)
Samoan	2	0	1	
Other Pacific Islander	0	0	3	
American Indian/Native Alaskan	3 (1.1%)	0 (%)	14 (1.1%)	17 (1.1%)
2 or more Races	33 (12.2%)	4 (9.8%)	75 (6.1%)	112 (7.3%)
Other Race	1	1	-	-
Hispanic	7 (2.6%)	3 (7.3%)	32 (2.6%)	42 (2.7%)
Missing/unknown	10 (3.7%)	1	86 (7.0%)	96 (6.2%)
Race/Ethnicity (Total)	273 (95.4%)	41 (100%)	1,230 (98.2%)	1,541 (98.1%)
Age:				
≤20	3 (1.7%)	0	94 (7.9%)	97 (6.9%)
21-25	36 (19.9%)	4 (12.9%)	619 (51.9%)	659 (46.9%)
26-30	48 (26.5%)	10 (32.2%)	267 (22.4%)	325 (23.2%)
31-40	57 (31.5%)	12 (38.7%)	173 (14.5%)	242 (17.2%)
41-50	27 (14.9%)	5 (16.1%)	34 (2.8%)	66 (4.7%)
51-60	10 (5.5%)	0	6 (.5%)	16 (1.1%)
≥61	0	0	0	0
Missing/unknown	0	0	0	0
Age (Total)	181 (64%)	31 (75.6%)	1,193 (95.2%)	1,405 (89.4%)

Graduate Nursing Programs

Student Enrolment and Admission Slots

As shown in Table 6, there were 32 applicants newly enrolled into the MEPN program in 2010-11. The number of qualified applicant not enrolled was 13% (10) in the Master programs and 45% (10) into the PhD program.

Graduates in the MS in Nursing and PhD Programs

A total of 44 postgraduates completed a Masters or PhD in nursing. Of these, 36 received a Master in nursing degree and 8 received a PhD in nursing.

TABLE 6: GRADUATE PROGRAM APPLICATIONS, CAPACITY, AND ENROLLMENT 2010 - 2011

	MEPN programs	MS in Nursing programs Clinical track	MS in Nursing programs Non-clinical track	PhD in Nursing programs
Number of applicants	94	58	29	29
Number of applicants meeting minimum admission requirements	67	51	24	22
Number of qualified applicants not enrolled	35	7	3	10
Number of admission slots				
Public	32	34	n/a	12
Private	n/a	n/a	n/a	n/a*
Number of students newly enrolled (admitted during 2009-				
2010 and began classes)				
Public	32	20	13	12
Private	n/a	24	8	n/a
Number of unfilled slots				
Public	0	14	n/a	0

^{*}n/a = not applicable

MS in Nursing and PhD Student Demographics

The number of graduate nursing students by gender, race/ethnicity, and age is shown in Table 7. Based on the data reported males made up 11% of the graduate nursing student population. The distribution of students by race/ethnicity reveals a higher number of Asian and Caucasian students across programs, with a strong Filipino rand Japanese representation in the Masters and PhD programs. For the graduate programs, the percentage of students in older age brackets is higher for both MS and PhD students.

TABLE 7: STUDENT DEMOGRAPHICS IN GRADUATE PROGRAMS, 2010 -2011

	MEPN Students	MSN Students Clinical Track	MSN Students Non-clinical Track	PhD Students	Graduate Students Total
Gender:					
Female	70 (84%)	117 (91.4%)	43 (89.6%)	55 (90%)	285 (89%)
Male	13 (16%)	11 (8.6%)	5 (10.4%)	6 (10%)	35 (11%)
Gender (Total)	83 (100%)	128 (100%)	48 (100%)	61 (100%)	320 (100%)
Race/Ethnicity:					
African-American	3 (3.6%)	2 (1.6%)	1 (2.2%)	1 (1.6%)	7 (2.3%)
Caucasian	25 (30.1%)	38 (29.7%)	10 (22.2%)	41 (67.2%)	114 (37.4%)
Asian (please break out)	30 (36.1%)	50 (39.1%)	14 (31.1%)	11 (18%)	105 (34.4%)
Chinese	6	4	3	1	14
Filipino	6	4	7	5	22
Japanese	14	10	3	3	30
Korean	2	0	0	2	4
Other Asian	2	1	4	0	7
Native Hawaiian	10 (12%)	14 (10.9%)	12 (26.7%)	5 (8.2%)	41 (13.4%)
Pacific Islander (please break out)	0	1 (0.8%)	2 (4.4%)	2 (3.3%)	5 (1.6%)
Samoan	0	1	1	0	2
Other Pacific Islander	0	0	1	2	3
American Indian/Native Alaskan	3 (3.6%)	2 (1.6%)	1 (2.2%)	0	6 (2%)
2 or more Races	12 (14.5%)	5 (3.9%)	1 (2.2%)	0	18 (5.9%)
Other Race	-	1	-	-	1
Hispanic	0	4 (3.1 %)	4 (8.9%)	1 (1.6%)	9 (3%)
Missing		12 (9.4 %)			
Race/Ethnicity (Total)	83 (100%)	128 (100%)	45 (93.8%)	61 (100%)	305 (95.3%)
Age:					
≤20	0	0	0	0	0 (0%)
21-25	22 (26.5%)	10 (9%)	2 (4.2%)	0	34 (11.2%)
26-30	29 (34.9%)	14 (12.6%)	7 (14.6%)	1 (1.6%)	51 (16.8%)
31-40	21 (25.3%)	52 (46.8%)	16 (33.3%)	14 (23%)	103 (34%)
41-50	10 (12%)	24 (21.6%)	15 (31.3%)	18 (29.5%)	67 (22.1%)
51-60	1 (1.2%)	10 (9%)	8 (16.7%)	26 (42.6%)	45 (14.9%)
≥61	0	1 (0.9%)	0	2 (3.3%)	3 (1%)
Age (Total)	83 (100%)	111(86.7%)	48 (100%)	61 (100%)	303 (94.7%)

Comparison of Students by School Year

Figure 1 reveals the number of qualified applicants meeting minimum admission requirements to the Ladder and AS programs continue to rise. Qualified applicants to the pre-licensed BS in nursing programs have declined since 2008 and rose slightly in 2010-11 to 622. Similar reductions in applicants to the MS and PhD programs were seen.

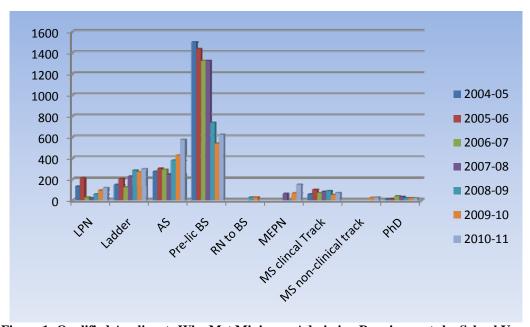


Figure 1: Qualified Applicants Who Met Minimum Admission Requirements by School Year

TABLE 8: NUMBER OF QUALIFIED APPLICANTS APPLYING TO PROGRAMS BY YEAR

			<u> </u>	Pre-			MS	MS non-	
				licensed			clinical	clinical	
	LPN	Ladder	AS	BS	RN to BS	MEPN	track	track	PhD
2004-05	131	147	273	1,501	-	-	58		12
2005-06	212	204	300	1,435	-	-	101		16
2006-07	28	124	291	1,322	ı	-	71		38
2007-08	19	226	247	1,323	ı	62	81		34
2008-09	57	283	378	736	29	0	88		20
2009-10	94	267	426	538	28	67	51	24	22
2010-11	116	297	575	622	I	148	71	28	19

Numbers of nursing students newly enrolled in the AS and BS programs have increased in 2010-11 (Figure 2). The number of students enrolled in LPN programs remain lower compared to the ladder program. The numbers of newly enrolled students have remained similar in MS programs and PhD program.

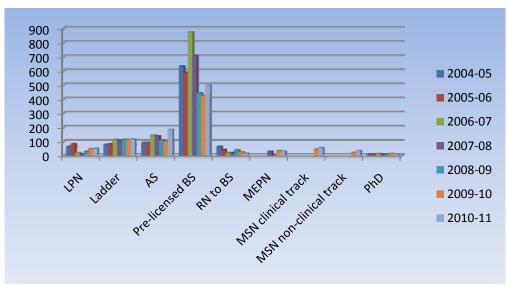


Figure 2: Number of Students Newly Enrolled in Nursing Programs by School Year

TABLE 9: NUMBER OF NEWLY ENROLLED STUDENTS BY YEAR

				Pre-			MSN	MSN non-	
				licensed			clinical	clinical	
	LPN	Ladder	AS	BS	RN to BS	MEPN	track	track	PhD
2004-05	63	79	90	634	63				9
2005-06	81	82	90	587	41				11
2006-07	20	112	143	872	18				12
2007-08	10	106	137	707	18	29			10
2008-09	29	112	107	443	39	0			10
2009-10	47	112	99	424	23	32	44	21	12
2010-11	50	114	184	497	15	30	54	34	11

Number of nursing students graduating in the BS and MS programs has steadily increased since 2004-05. There was a dip in graduation numbers in 2009-10 with an increase in 2010-11 (Figure 3). The number of LPN program graduates have remained lower compared to LPN graduates in the ladder programs.

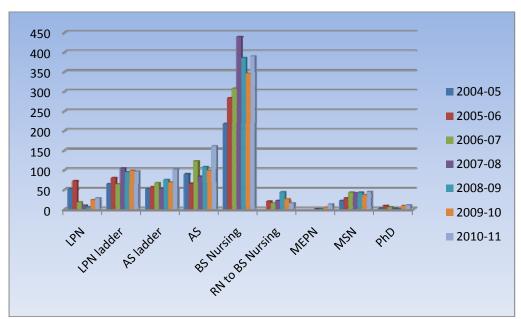


Figure 3: Number of Graduating Students in Nursing Programs by School Year

TABLE 10: NUMBER OF GRADUATING STUDENTS FROM PROGRAMS BY YEAR

		LPN	AS		BS	RN to BS			
	LPN	ladder	ladder	AS	Nursing	Nursing	MEPN	MSN	PhD
2004-05	51	64	51	89	217			21	2
2005-06	71	79	56	65	283	19		28	8
2006-07	17	63	66	122	307	15		42	5
2007-08	9	104	52	83	439	21	0	40	1
2008-09	5	94	74	107	385	43	0	42	0
2009-10	23	97	68	98	345	25	4	36	8
2010-11	28	96	101	160	389	15	12	44	10

Faculty

Nursing programs were asked to provide the number of filled full-time faculty positions, the number of full-time faculty vacancies, the number of adjunct faculty positions, and the number of adjunct faculty vacancies. The overall vacancy rate was 7.6 percent. Vacancies for full-time faculty positions were 7.3 percent; the vacancy rate for adjunct faculty positions was 8.0 percent. In 2010-11 the vacancies rates were similar in full time and part time faculty positions.

TABLE 11: NUMBER OF FACULTY AND VACANCIES IN HAWAII NURSING EDUCATION PROGRAMS, 2010 - 2011

Category	Number
Filled full-time faculty positions	
	179
Full-time faculty vacancies (open positions that programs are actively	
trying to fill)	13
Filled adjunct faculty positions	
	125
Adjunct faculty vacancies (open positions that the program is actively	
trying to fill)	10

Programs also provided demographic information on their full-time and part time adjunct faculty. Nine institutions provided data on the race/ethnicity and age of faculty. Some institutions did not provide complete race/ethnicity or age data on employed faculty.

Faculty Demographics

As shown in Tables 9:

- Of the total faculty population reported, 14% were male with similar distribution of males in full time and part time faculty.
- Full-time faculty members were predominantly made up of 71.6% Caucasian and 18.3% Asian.
- Adjunct faculty members were predominantly made up of 49.6% Caucasian and 35.7% Asian.
- 28% of full-time faculty were 61 years or older.
- 9% adjunct faculty were 61 years or older.
- A smaller percentage of full-time faculty (14.7%) and a greater percentage of adjunct faculty (22.5%) were under the age of 41 years.

Table 9: Demographics of Nursing Faculty, 2010 - 2011

	Number of Full time faculty	Number of Adjunct faculty	Faculty Total
Gender:			
Female	142 (85.5%)	59 (86.8%)	201(85.9%)
Male	24 (14.5%)	9 (13.2%)	33 (14.1%)
Gender (Total)	166 (97.6%)	68 (59.1%)	234 (82.4%)
Race/Ethnicity:			
African-American	4 (2.4%)	1 (0.9%)	5 (1.8%)
Caucasian	121 (71.6%)	57 (49.6%)	178 (62.7%)
Asian (break out below)	31 (18.3%)	41 (35.7%)	72 (25.4%)
Chinese	3	2	5
Filipino	8	12	20
Japanese	12	18	30
Korean	0	1	1
Other Asian	1	1	2
Native Hawaiian	4 (2.4%)	7 (6.1%)	11 (3.9%)
Pacific Islander (break out below)	2 (1.2%)	0	2 (0.7%)
Samoan	1	0	1
Other Pacific Islander	1	0	1
American Indian/Native Alaskan	1 (0.6%)	0	1
2 or More Races	2 (1.2%)	6 (5.2%)	8 (2.8%)
Some Other Race	0	0	0 (0%)
Hispanic	4 (2.4%)	3 (2.6%)	7 (2.5%)
Race/Ethnicity (Total)	169 (99.4%)	115(100%)	284 (100%)
Age Group:			
≤30	1 (0.6)	3 (2.9%)	4 (1.5%)
31-40	24 (14.1%)	20 (19.6%)	44 (16.2%)
41-50	33 (19.4%)	43 (42.2%)	76 (27.9%)
51-55	28 (16.5%)	14 (13.7%)	42 (15.4%)
56-60	36 (21.2%)	12 (11.8%)	48 (17.6%)
61-65	33 (19.4%)	6 (5.9%)	39 (14.3%)
66-70	13 (7.6%)	2 (2.0%)	15 (5.5%)
≥71	2 (1.2%)	1 (1.0%)	3 (1.1%)
Missing	0	1 (1.0%)	1 (0.4%)
Age (Total)	170 (100%)	102 (88.7%)	272 (95.8%)

Program Capacity

Survey respondents were asked which, if any, of the following resource issues were of concern for their program during 2010-11. Respondents reported a lack of clinical sites most often, followed by the availability of clinical faculty for student placements. The predominant resource issues identified by the institutions include

- Seven of nine programs reported lack clinical sites for student clinical placements
- Three programs lack clinical faculty for clinical placements.

Table 10 highlights the percentage of nursing programs reporting a lack of resources.

TABLE 12: PERCENT OF NURSING PROGRAMS LACKING RESOURCES, 2010 - 2011

	Full-time Faculty	Clinical sites for clinical placements	Faculty for clinical sites**	Classroom facilities
Percent of nursing programs reporting lack of resources	56%	78%	33%	11%

^{**}Access to clinical sites such as hospitals, long-term care facilities, outpatient centers, and home & hospice care agencies

In 2010-11 school year there was a significant increase in the lack of clinical sites available for student placements compounded by the increase in need for clinical faculty for student placements (Figure 4).

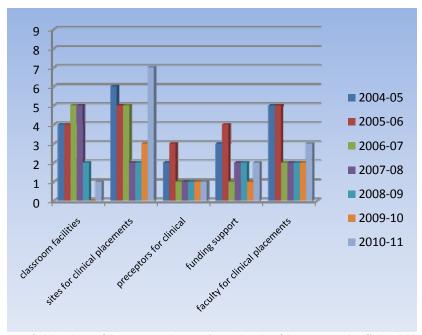


Figure 4: Number of Programs Reporting a Lack of Resources by School Year

Faculty Positions

As shown in Figure 5, filling full time faculty vacancies continue to be a challenge for nursing programs. In 2010-11 5 out of 9 programs reported difficulties filling faculty vacancies. Specialty areas pediatrics, medical/surgical, and mental health had the highest ranked difficulty in filling faculty positions.

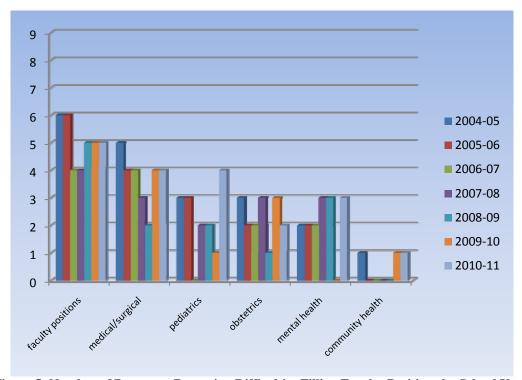


Figure 5: Number of Programs Reporting Difficulties Filling Faculty Positions by School Year

Adjunct Faculty

Ten adjunct faculty vacancies were reported by nursing programs in 2010-11. Half of the programs reported challenges in filling adjunct faculty positions in medical/surgical 50%, obstetrics 33%, mental health 33%, and community health 22%.

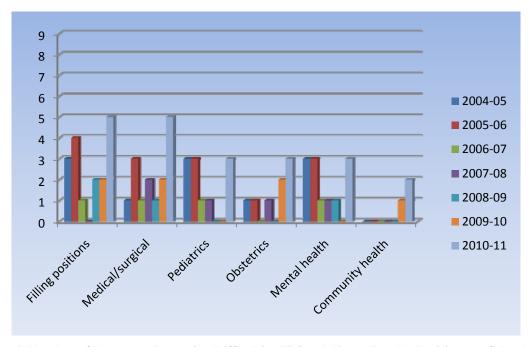


Figure 6: Number of Programs Reporting Difficulties Filling Adjunct Faculty Positions by School Year

Discussion

Hawaii State Center for Nursing conducts annual educational capacity surveys to capture and generate student and faculty trend data. The information is widely disseminated to inform stakeholders across the state; and influence nursing education policy to meet future workforce needs.

Nursing programs continue to show sustained growth in the number of qualified applicants applying to the LPN to Associate Degree Ladder programs, Associate Degree programs, and Master Entry Program in Nursing (MEPN); students newly enrolled in Associate and Masters Programs; and graduates from Associate and Masters programs have also grown. While the number of qualified applicants' enrolled in programs have remained relatively stable over the past three years

Barriers contributing to programs ability to expand educational capacity include;

- Lack of faculty, facilities, or clinical placement sites to support students,
- Applicant related factors such as number qualified applicants, affordability of programs, and enrollment of the applicant in another program.

Five year growth rate in graduates from registered nursing programs (Associate and Baccalaureate programs) was 11.4%, Ladder-LPN 4.3%. LPN program graduate growth rates declined by -12.1%. LPN trends reflect programmatic changes taking place as some public nursing programs with the transition in to the consortium model.

An ongoing slump in economic drivers continues to negatively impact job demand, but experts in the field forecast increased demand for licensed nurses (i.e., LPNs, RNs, APRNs) over the next decade. U.S. Department of Labor indicates employment of registered nurses is expected to grow by 22 percent from 2008 to 2018, much faster than the average for all occupations. Growth will be driven by technological advances in patient care, which permit a greater number of health problems to be treated, and by an increasing emphasis on primary preventive care. In addition, the number of older people, who are much more likely than younger people to need nursing care, is projected to grow. However, employment of RNs will not grow at the same rate in every industry. Employment growth is expected to be slower in hospitals. Overall, job opportunities are expected to be excellent because of the relatively high turnover of hospital nurses, growth in state population and roll out of the Affordable Care Act expected to increase access to health care.

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¹ US Department of Labor. *Occupational Outlook Handbook*. 2010-11 edition. Accessed 09/20/2010, http://www.bls.gov/oco/ocos083.htm

Conclusion

U.S. healthcare provider workforce forecasts indicate an increased demand for nurses over the next decade. The need for more nurses will coincide with population growth, an ageing population, implementation of the affordable care act and access to healthcare; and a growing physician shortage. The predicted physician shortage over the next decade will stimulate new employment/career opportunities for nurses as innovative and cost effective models of healthcare are sought to fill gaps in access to care created by the physician shortage.

Over the past 5 years, registered nursing programs have experienced sustained growth in graduate numbers. Similar growth trends in graduate numbers are seen in the Masters in nursing programs. To help address educational capacity issues, the University of Hawaii implemented its statewide nursing education consortium in the fall of 2010. The undergraduate nursing curriculum and learning strategies will increase flexibility and accessibility across the UH system. Additionally, an online clinical placement system was also implemented to improve the identification of gaps in clinical placement and increase clinical opportunities for students.

Nursing programs continue to see a climb in the number of qualified applicants unable to enroll in programs such as the MEPN program and the Associate Degree in nursing. Capacity issues continuing to challenge nursing programs include availability of full time faculty, qualified faculty for clinical sites, and number of clinical sites for student clinical placement opportunities. Findings from the 2010-11 survey reveal 66% of full time faculty are >50 years of age with a 7% vacancy rate. Over the next five to ten years approximately 48 (28%) full time faculty and 9 (9%) adjunct faculty aged >60 years could retire and leave faculty teaching positions. Educational strategies are essential to ensure there is a pipeline of educators to replace faculty intending to retire over the next decade.

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