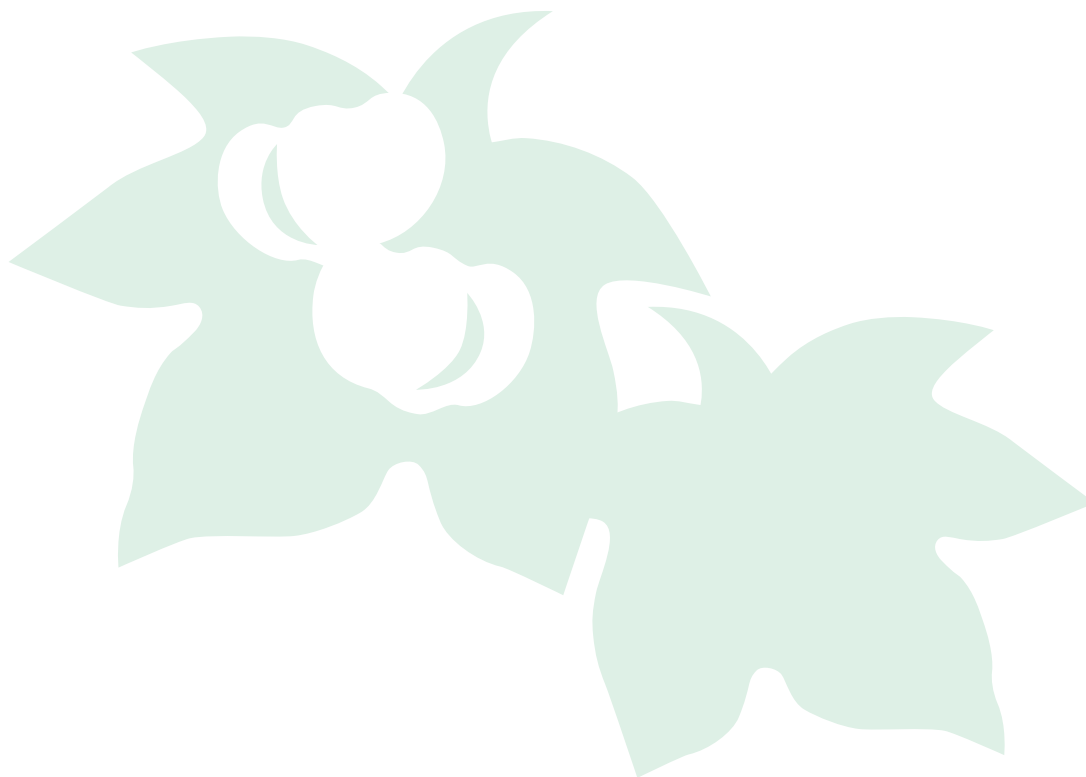




Hawai'i State Center for Nursing

**Nursing Education Programs
2008 - 2009**



December 2010

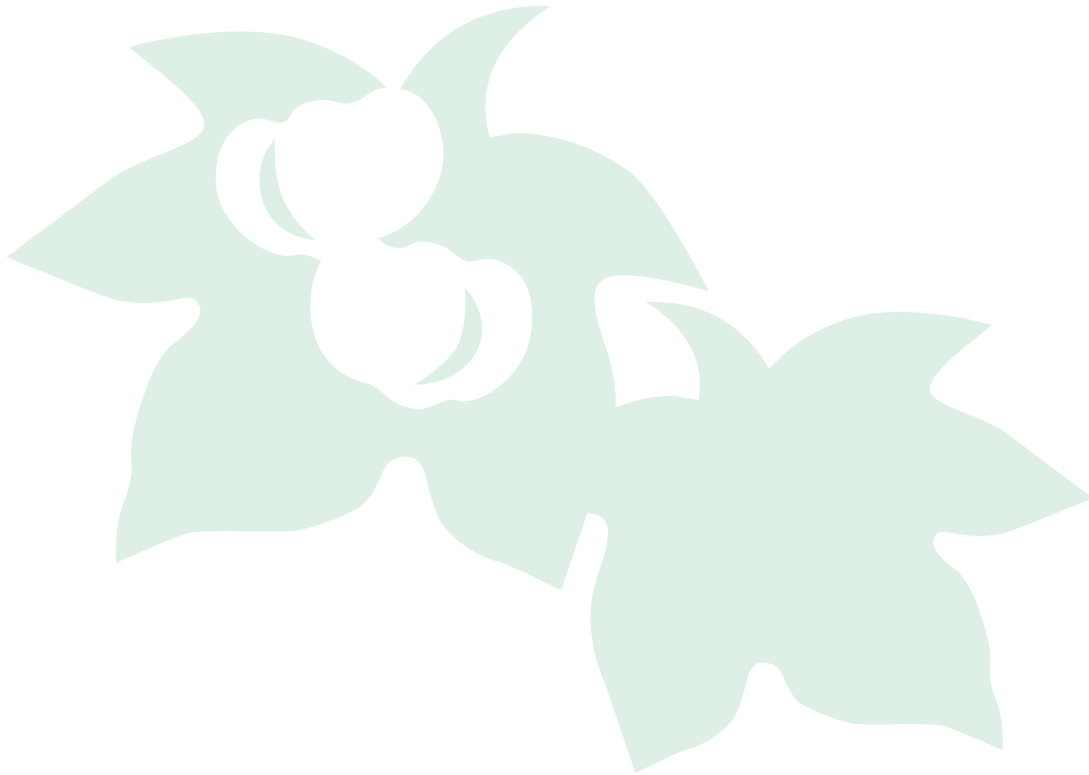
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Hawai'i State Center for Nursing

**Nursing Education Programs
2008 - 2009**



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Introduction

In 2008-09 Hawaii experienced a significant economic downturn that subsequently had a negative impact on job vacancies and growth. However the economic downturn is not expected to change previous workforce projects over the next twenty years. As an increasing number of Veteran and Baby Boomer registered nurses will retire and exit the workforce. Hawaii, like the rest of the nation, is expected to experience a growing nursing shortage as nurses retire. A significant impact will be felt in the tertiary education sector where 62% of full time faculty are 50 years or older. National trends in the ageing of nursing faculty may increase difficulties in filling faculty vacancies and negatively impact the enrollment of qualified applicants into programs because of the lack of qualified teaching faculty.

The State of Hawaii has eight nursing education programs. Two are private institutions and six programs are part of the University of Hawaii public system. Nursing programs are located on the islands Oahu, Maui, Hawaii, and Kauai. As of 2008, nursing programs in Hawaii continued to turn away qualified applicants from the LPN programs 49% (28), Ladder programs 60% (171), Associate Degree (AS) programs 72% (271), 28% (208) Bachelor's Degree (BS) and RN-BS programs. In addition to the qualified applicants turned away from the Master's in Nursing programs 11% (10) and 50% (10) from the PhD program.

A statewide annual nursing education survey is conducted by the Hawaii State Center for Nursing to collect ongoing student enrollment data, student and faculty demographics, and faculty vacancy rates. Trending data is generated over time to inform workforce planning and policy at the state and regional level.

The University of Hawaii System, School of Nursing and Dental Hygiene and 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), or a bachelor of science in nursing (BS). Private institutions have unlimited admission slots. However, all programs may have difficulty filling admission slots if they currently lack faculty, facilities, or clinical placement sites to support the number of admission slots. They also may not fill admission slots if there are few qualified applicants, or if admitted applicants do not enroll because of financial or personal reasons or acceptance to another educational program.

Survey findings indicate that during 2008-09 the percent of admission slots unfilled or filled in the public system were

- 49% (106) of the admission slots for clinical ladder programs were unfilled

- 3% (1) of the admission slots for LPN programs were unfilled
- 11% (13) of the admission slots for AS programs were unfilled
- 2% (3) of the admission slots for BS programs were unfilled
- 41% (7) of the admission slots for RN to BS were unfilled

In 2008 - 2009, the public nursing programs continue to report having more qualified applicants than the number of approved / available admission slots. Overall, for the public institutions providing data and enrollment information, an estimated 698 qualified applicants were not enrolled.

- 28 qualified applicants were not enrolled in LPN programs
- 171 qualified applicants were not enrolled in Ladder programs
- 271 qualified applicants were not enrolled in AS programs
- 214 qualified applicants were not enrolled in pre-licensed BS programs
- 6 qualified applicants were not enrolled in RN to BS programs
- MEPN program did not enroll students in 2008-09
- 10 qualified applicants were not enrolled in MS in Nursing programs
- 10 qualified applicants were not enrolled in the PhD program

Approximately 8% (39) of BS students newly enrolled during 2008-2009 were already licensed as registered nurses (RNs) and returned to upgrade their level of education to a Bachelor of Science degree. A total of 708 graduates received a LPN, AS or BS in the undergraduate programs; 42 graduates received a MS in Nursing and no graduates received a PhD in Hawaii for 2008-09. Survey results show for the 2008-09 school year;

- 5 graduates received a certificate or diploma through a LPN program,
- 94 students in the ladder program completed requirements for the LPN portion of the program,
- 74 graduates completed the ladder program to receive an AS in Nursing,
- 107 graduates received an AS in Nursing,
- 428 graduates received a BS in Nursing,
- 42 graduates received a MS in Nursing, and
- 0 graduates received a PhD in nursing.

Nursing programs capacity to accept students is determined by the availability of faculty, facilities, and clinical placement opportunities. Survey findings revealed that:

- Out of the race/ ethnicity data provided on 344 faculty, an estimated 1% of faculty members are identified as African American, <1% Two or more Races, <1% Pacific Islander, 2% Hispanic, 2% Native Hawaiian, 23% Asian, and 64% Caucasian.

- Out of the age data provided on 193 full time faculty, 68% of full-time faculty are 50 years or older.
- Out of age data provided on 151 adjunct faculty, 48% of adjunct faculty are 50 years or older.
- The overall vacancy rate for full-time faculty positions in nursing education programs is 10% (17 out of 177 positions) and the vacancy rate for adjunct faculty positions is 0% (0 out of 151 positions).

When asked about issues of concern for their nursing program, survey respondents reported most frequently the ongoing difficulties in filling full-time faculty positions. A lack of clinical sites for student placements; followed by the lack of faculty for clinical placements and the lack of classroom facilities was also identified. Of the eight institutions surveyed:

- 63% report difficulty filling full-time or 25% adjunct faculty positions with a particular emphasis on certain specialty areas such as medical/surgical, pediatrics, and mental health
- 25% lack enough sites for clinical placements for nursing students
- 25% lack faculty to support the clinical placements of students
- 25% lack classroom space
- 25% lack funding support

The programs continue to seek innovative strategies to address factors (e.g., faculty vacancies, limited clinical placement sites and classroom facilities) that limit the capacity of nursing education programs to increase student enrollments.

The University of Hawaii statewide nursing consortium is scheduled for introduction in fall 2010. The participating public nursing programs have collaborated to redesign nursing curriculum and learning strategies to increase educational flexibility and accessibility. Initiatives such as simulation labs across the state will also help in alleviating some of the issues concerning lack of clinical placement sites.

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 education institutions surveyed offers 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 2008-2009 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, 2008 – 2009

	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.	<ul style="list-style-type: none"> • 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.	<ul style="list-style-type: none"> • Kauai Community College • Maui Community College
Licensed Practical Nurse (LPN) to AS – program admits LPNs and awards an associate’s degree in nursing.	<ul style="list-style-type: none"> • 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.	<ul style="list-style-type: none"> • Hawaii Community College • Kapiolani 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.	<ul style="list-style-type: none"> • University of Hawaii at Hilo • University of Hawaii at Manoa • Hawaii Pacific University
LPN to bachelor of science in nursing (BS) – Admits LPNs and awards a bachelor of science degree in nursing.	<ul style="list-style-type: none"> • 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.	<ul style="list-style-type: none"> • 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.	<ul style="list-style-type: none"> • University of Hawaii at Manoa
Master of Science Programs	
RN to MSN – Admits RNs and awards a master of science in nursing.	<ul style="list-style-type: none"> • Hawaii Pacific University
BS to MSN – Admits only students with a BS and awards a master of science in nursing.	<ul style="list-style-type: none"> • Hawaii Pacific University • 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.	<ul style="list-style-type: none"> • University of Hawaii at Manoa
Doctoral Programs	
MS to PhD – Admits students with an MSN or MS in a health related field and confers a doctor of philosophy (nursing).	<ul style="list-style-type: none"> • 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 49% (28) of LPN program qualified applicants and 60% (171) of Ladder program qualified applicants were not enrolled.

As shown in Table 2, public institutions reported 30 admission slots for LPN students during 2008 - 2009. An additional 218 admission slots were approved for students entering a ladder program, which combines a LPN program with an AS program. Twenty nine (97%) students were reported to be newly enrolled in the LPN program and 112 (51%) in the ladder programs. Overall, 1 (3%) of the admission slots for the LPN program and 106 (49%) of the admission slots for the Ladder programs were unfilled.

TABLE 2: LPN AND LADDER PROGRAMS APPLICATIONS, CAPACITY, AND ENROLLMENT FOR 2008- 2009

	LPN programs	Ladder programs
Number of admission slots		
Public	30	218
Private	No limit	No limit
Number of applicants	71	402
Number of applicants meeting minimum admission requirements	57	283
Number of students newly enrolled (admitted during 2008 -2009 and began classes)	29	112
Number of qualified applicants not enrolled	28	171
Number of unfilled slots		
Public	1	106

Graduates in the LPN Programs

During the 2008 – 2009 school year an estimated 99 (94 of these students completed the LPN portion of their ladder program) completed the LPN program.

LPN Student Demographics

LPN programs continue to show a high percentage of students over the age of 25.

TABLE 3: DEMOGRAPHIC CHARACTERISTICS OF LPN NURSING STUDENTS IN THE LPN AND LADDER PROGRAMS, 2008-2009

	LPN Students
Gender:	Number (%)
Female	142 (90%)
Male	16 (10%)
Gender (Total)	158 (100%)
Race/Ethnicity:	
African-American	2 (1.3%)
Caucasian	33 (20.8%)
Asian (<i>break out</i>)	81 (50.9%)
Chinese	1
Filipino	63
Japanese	9
Korean	0
Other Asian	6
Native Hawaiian	12 (7.5%)
Pacific Islander (<i>break out</i>)	2 (1.3%)
Samoan	0
Other Pacific Islander	2
American Indian/Native Alaskan	0
Mixed (<i>2 or more races</i>)	25 (15.7%)
Some Other Race	0
Hispanic	4 (2.5%)
Race/Ethnicity (Total)	159 (100%)
Age:	
18-21	8 (5.1%)
22-24	23 (14.6%)
25-29	41 (25.9%)
30-34	38 (24.1%)
35-39	25 (15.8%)
40-44	18 (11.4%)
45-49	4 (2.5%)
50-54	1 (.6%)
55-59	0
60+	0
Age (Total)	158 (100%)

Registered Nurse Programs

Student Enrolment and Admission Slots

Table 4 indicates that 72% (378) of qualified applicants for the AS programs were not enrolled. 29% (214) of qualified applicants for pre-licensed BS programs were not enrolled and 11% (79) did not take up the offer to enroll (4 from public and 75 from private).

TABLE 4: AS & BS PROGRAMS APPLICANTS, CAPACITY, AND ENROLLMENT FOR 2008 - 2009

	AS in Nursing Programs	BS in Nursing Programs	RN to BS in Nursing Programs
Number of applicants	435	948	24E#
Number of applicants meeting minimum admission requirements	378	736	24E#
Number of qualified applicants not enrolled	271	293 ⁺⁺	6 ⁺⁺⁺
Number of admission slots			
Public	120	146	17
Private	n/a*	n/a*	no limit set
Number of students newly enrolled (admitted during 2008 – 2009 and began classes)			
Public	107	143	10
Private	n/a*	300	29
Number of unfilled slots			
Public	13	3	7

*n/a = not applicable; #E= estimate; ⁺⁺includes qualified pre-licensed BS in nursing applicants not enrolled n=214 and applicants who did not take up an offer to enroll n=79; ⁺⁺⁺RN to BS applicants who did not take up an offer to enroll n=6

In 2008 - 09, one hundred twenty admission slots were available for students seeking an AS in public institutions and 107 (89%) were newly enrolled in the AS program (Table 4). Table 4 also shows an estimated 146 admission slots for pre-licensed students seeking a BS and 17 admission slots for RN to BS were available in public institutions in 2008-09. 143 (98%) students were newly enrolled in the pre-licensed BS program. Whilst the private institutions do not limit student admissions they do face similar challenges experienced by the public institutions offering nursing programs. Three slots (2%) in pre-licensed BS programs went unfilled.

Graduates in AS in Nursing and BS in Nursing Programs

181 undergraduates received an AS in nursing 74 (41% of these graduates completed the AS portion of their ladder program) and 428 graduates received a BS degree in nursing 43 (10%) of these graduates had completed the RN to BS program).

AS in Nursing and BS in Nursing Student Demographics

Table 5 identifies that males made up 17% of the student population in the registered nursing programs. The distribution of students by race/ethnicity shows a high number of Asians and Caucasians across programs, with a strong Filipino and 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: DEMOGRAPHIC CHARACTERISTICS OF NURSING STUDENTS IN REGISTERED NURSE PROGRAMS, 2008 - 2009

	AS in Nursing Students	BS in Nursing Students	RN Program Students Total
	Number (%)	Number (%)	Number (%)
Gender:			
Female	156 (88%)	508 (78%)	664 (%)
Male	21 (12%)	145 (22%)	166 (%)
Gender (Total)	177 (100%)	653 (47%)	830 (74%)
Race/Ethnicity:			
African-American	0	16 (1%)	16 (1%)
Caucasian	37 (21%)	251 (18%)	288 (18%)
Asian (<i>break out</i>)	89 (50%)	866 (62%)	955 (61%)
Chinese	1	34	
Filipino	55	176	
Japanese	15	107	
Korean	2	25	
Other Asian	16	17	
Native Hawaiian	26 (15%)	132 (10%)	158 (10%)
Pacific Islander (<i>break out</i>)	0	10 (<1%)	10 (<1%)
Samoan	0	4	
Other Pacific Islander	0	6	
American Indian/Native Alaskan	0	11 (<1%)	11 (<1%)
Mixed (<i>2 or more races</i>)	21 (12%)	55 (4%)	76 (5%)
Some Other Race	0	9 (<1%)	9 (<1%)
Hispanic	4 (2%)	38 (3%)	42 (3%)
Race/Ethnicity (Total)	177 (100%)	1,388 (100%)	1,565 (100%)
Age:			
18-21	10 (6%)	76 (12%)	86 (10%)
22-24	20 (11%)	205 (31%)	225 (27%)
25-29	47 (27%)	168 (26%)	215 (26%)
30-34	49 (28%)	93 (14%)	142 (17%)
35-39	23 (13%)	45 (7%)	68 (8%)
40-44	15 (8%)	32 (5%)	47 (6%)
45-49	11 (6%)	23 (4%)	34 (4%)
50-54	1 (<1%)	9 (<1%)	10 (<1%)
55-59	0	1 (<1%)	1 (<1%)
60+	1 (<1%)	1 (<1%)	2 (<1%)
Age (Total)	177 (%)	653 (47%)	830 (74%)

Graduate Nursing Programs

Student Enrolment and Admission Slots

As shown in Table 6, there were no applicants enrolled into the MEPN program in 2008-09. The number of qualified applicant not enrolled was 11% (10) in the Master programs and 50% (10) into the PhD program.

Graduates in the MS in Nursing and PhD Programs

A total of 42 postgraduates completed a Masters or PhD in nursing. Of these, 42 received a Master in nursing degree and 0 received a PhD in nursing.

TABLE 6: GRADUATE PROGRAM APPLICATIONS, CAPACITY, AND ENROLLMENT FOR 2008 - 2009 SCHOOL YEAR

	MEPN programs	MS in Nursing programs	PhD in Nursing programs
Number of applicants	-	105	36
Number of applicants meeting minimum admission requirements	-	88	20
Number of qualified applicants not enrolled	-	10	10
Number of admission slots			
Public	-	54	12
Private	n/a	No limit	n/a*
Number of students newly enrolled (admitted during 2007 – 2008 and began classes)			
Public	-	37	10
Private	n/a	41	n/a
Number of unfilled slots			
Public	-	17	2

*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 for each type of nursing education program, based on the data available.

Table 7 identifies that males made up 12% of the graduate nursing programs student population. The distribution of students by race/ethnicity shows a high number of Asians and Caucasians across programs, with a strong Filipino and Japanese representation in the Masters in Nursing and PhD programs. For the graduate programs, the percentage of students in older age brackets is higher for both MS and PhD students.

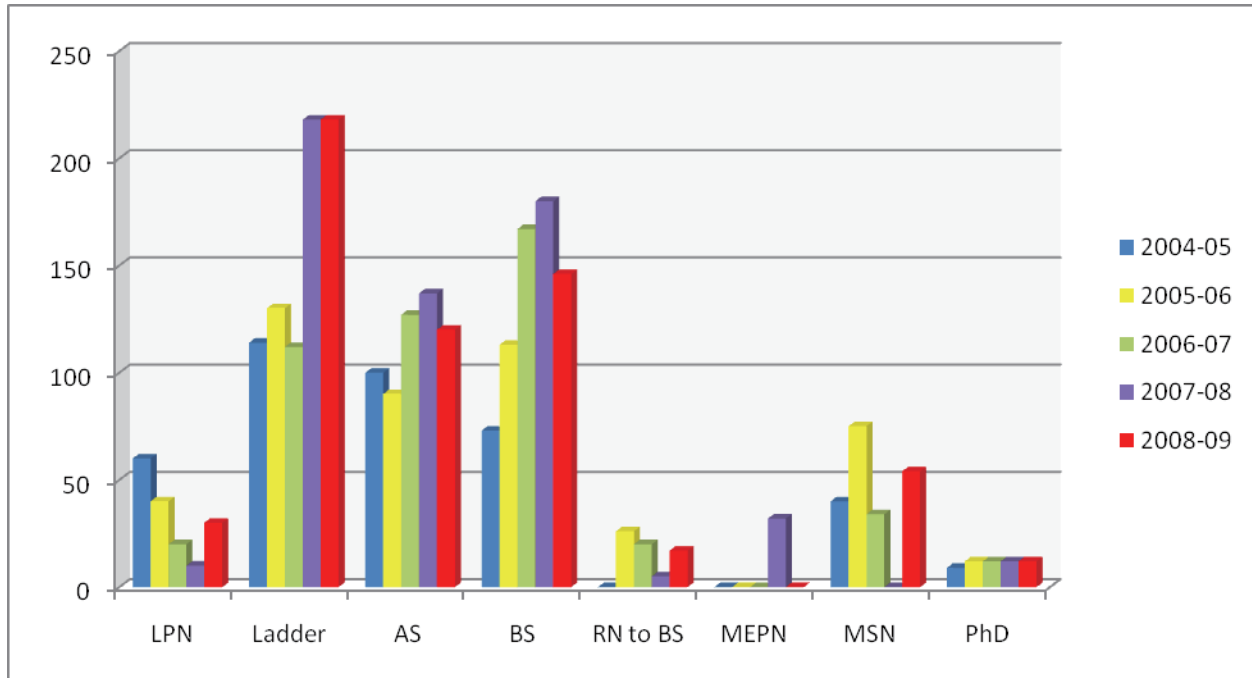
TABLE 7: DEMOGRAPHIC CHARACTERISTICS OF NURSING STUDENTS IN GRADUATE PROGRAMS, 2008 -2009

	MSN Students	PhD Students	Graduate Students Total
Gender:			
Female	104 (87%)	45 (90%)	149 (88%)
Male	16 (13%)	5 (10%)	21 (12%)
Gender (Total)	120 (100%)	50 (100%)	170 (100%)
Race/Ethnicity:			
African-American	1 (<1%)	1 (2%)	2 (1%)
Caucasian	39 (32%)	30 (60%)	69 (41%)
Asian (<i>please break out</i>)	39 (32%)	12 (24%)	51 (30%)
Chinese	6	1	
Filipino	11	5	
Japanese	19	4	
Korean	2	2	
Other Asian	1	0	
Native Hawaiian	13 (11%)	3 (6%)	16 (9%)
Pacific Islander (<i>please break out</i>)	5 (4%)	3 (6%)	8 (5%)
Samoan	2	1	
Other Pacific Islander	3	2	
American Indian/Native Alaskan	3 (3%)	0	3 (2%)
2 or more Races	12 (10%)	0	12 (7%)
Some Other Race	1 (<1%)	0	1 (<1%)
Hispanic	7 (6%)	1 (2%)	8 (5%)
Race/Ethnicity (Total)	120 (100%)	50 (100%)	170 (100%)
Age:			
18-21	0	0	0
22-24	9 (8%)	0	9 (5%)
25-29	28 (23%)	0	28 (17%)
30-34	24 (20%)	7 (14%)	31 (18%)
35-39	14 (12%)	5 (10%)	19 (11%)
40-44	12 (10%)	6 (12%)	18 (11%)
45-49	14 (12%)	12 (24%)	26 (15%)
50-54	13 (11%)	11 (22%)	24 (14%)
55-59	5 (4%)	7 (14%)	12 (7%)
60+	1 (<1%)	2 (4%)	3 (2%)
Age (Total)	120 (100%)	50 (100%)	216 (100%)

Comparison of Students by School Year

As shown in Figure 1, the number of admission slots in institutions reached a plateau or decreased in the ladder, AS in nursing, BS in nursing, and Master's in nursing programs. LPN program admission slots rose in 2008-09.

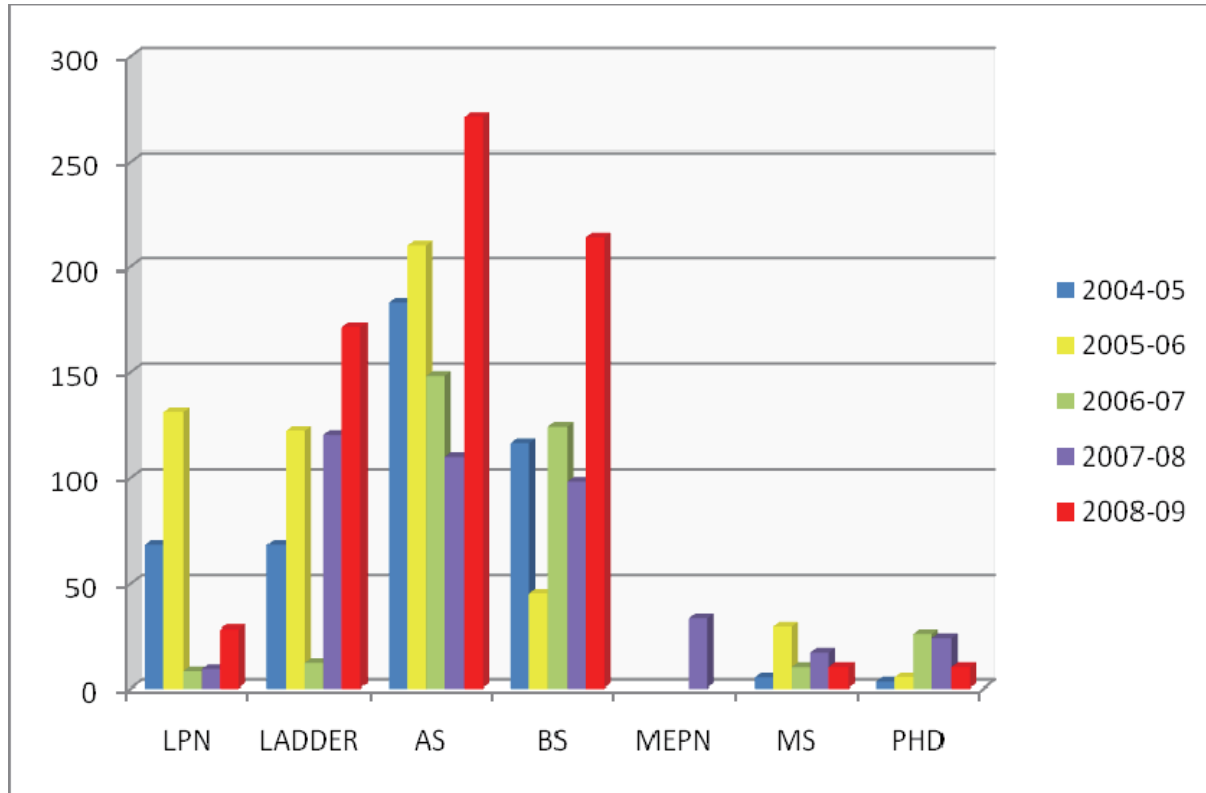
Figure 1: Number of Admission Slots in Nursing Programs by School Year



	LPN	Ladder	AS	BS	RN to BS	MEPN	MSN	PhD
2004-05	60	114	100	73	0	-	40	9
2005-06	40	130	90	113	26	-	75	12
2006-07	20	112	127	167	20	-	34	12
2007-08	10	218	137	180	5	32	0	12
2008-09	30	218	120	146	17	-	54	12

Figure 2 shows the number of qualified applicants not being enrolled in the Ladder and AS programs are over 100. Applicants not enrolled in the BS programs were 214 with an additional 79 not taking up an offer to enroll. Conversely, applicants not enrolled into the MS programs have reduced. While applicants not enrolled in the PhD program are high.

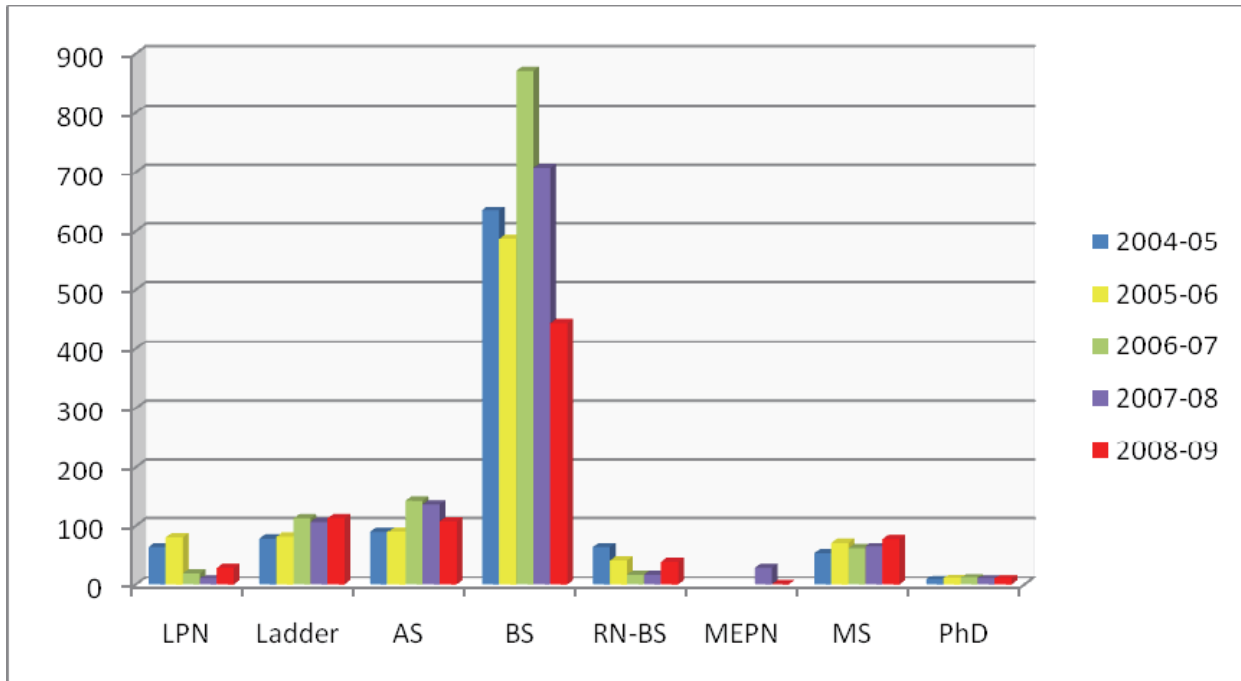
Figure 2: Number of Qualified Applicants Not Enrolled in Nursing Programs by School Year



	LPN	LADDER	AS	BS	MEPN	MS	PHD
2004-05	68	68	183	116	-	5	3
2005-06	131	122	210	45	-	29	5
2006-07	8	12	148	124	-	10	26
2007-08	9	120	110	98	33	17	24
2008-09	28	171	271	214	-	10	10

As shown in Figure 3, nursing students newly enrolled in the Ladder, AS and BS programs rose in 2006-07 and declined slightly in 2007-08. Numbers decline in the LPN programs. The numbers of newly enrolled students have remained similar in MS programs.

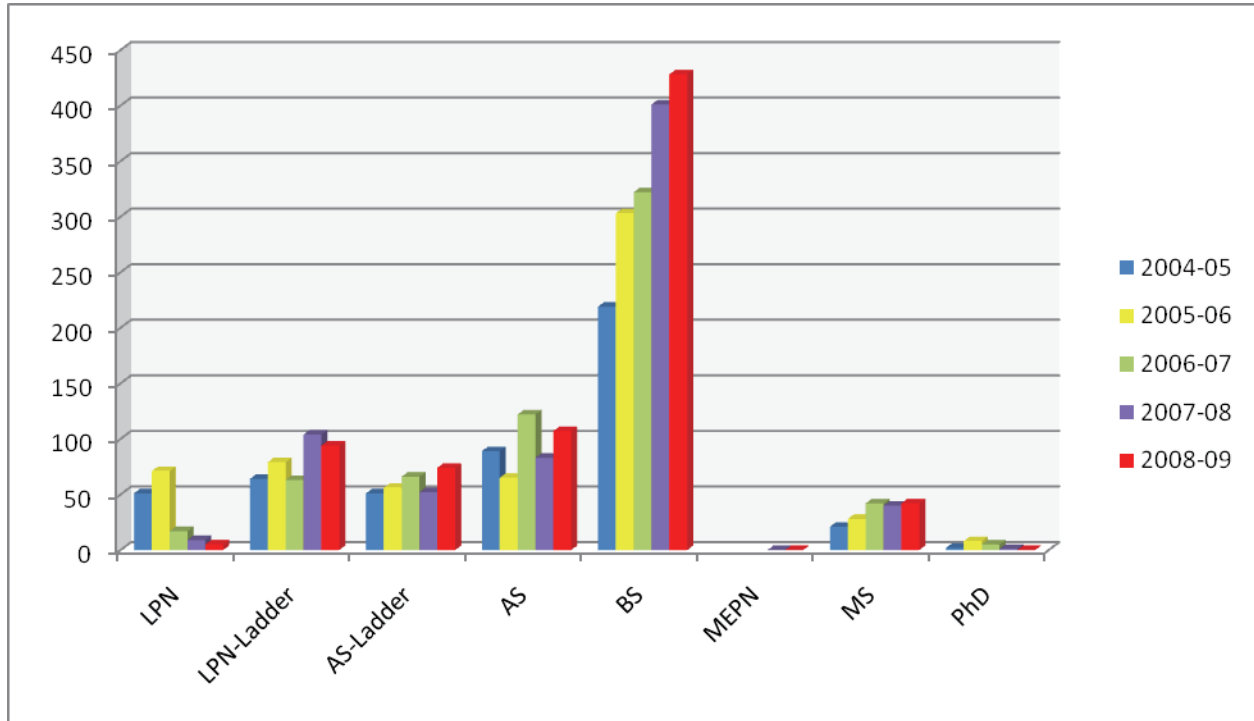
Figure 3: Comparison in Number of Students Newly Enrolled in Nursing Programs by School Year



	LPN	Ladder	AS	BS	RN-BS	MEPN	MS	PhD
2004-05	63	79	90	634	63	-	53	9
2005-06	81	82	90	587	41	-	72	11
2006-07	20	112	143	872	18	-	61	12
2007-08	10	106	137	707	18	29	64	10
2008-09	29	112	107	443	39	-	78	10

Figure 4 reveals the number of nursing students graduating in the BS and MS programs has steadily increased since 2004-05. However, numbers of LPN program graduates have declined.

Figure 4: Comparison in Number of Graduating Students in Nursing Programs by School Year



	LPN	LPN-Ladder	AS-Ladder	AS	BS	MEPN	MS	PhD
2004-05	51	64	51	89	219		21	2
2005-06	71	79	56	65	303		28	8
2006-07	17	63	66	122	322		42	5
2007-08	9	104	52	83	401	0	40	1
2008-09	5	94	74	107	428	0	42	0

Faculty

Survey respondents were asked to provide the number of 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 responses can be seen below in Table 8. Based on the data provided, the overall vacancy rate for full-time faculty positions in nursing education programs is 4 percent; the vacancy rate for adjunct faculty positions is 3 percent. There continues to be a higher percentage of unfilled full-time faculty positions compared to adjunct faculty positions.

TABLE 8: NUMBER OF FACULTY AND VACANCIES IN HAWAII NURSING EDUCATION PROGRAMS, 2008 – 2009

Category	Number
Filled full-time faculty positions	205
Full-time faculty vacancies (open positions that programs are actively trying to fill)	9
Filled adjunct faculty positions	184
Adjunct faculty vacancies (open positions that the program is actively trying to fill)	6

Survey respondents were also asked to provide demographic information on their full-time and adjunct faculty. All eight institutions provided faculty data on the race/ethnicity. Six institutions provided data on faculty age. One institution could not provide race/ethnicity of adjunct faculty and one institution could not provide age of adjunct faculty.

Faculty Demographics

As shown in Tables 9 and 10:

- 68% of faculties have achieved a Master in Nursing and 23% a PhD as the highest level of education.
- Of the total faculty population reported, 11% are male with a larger percent of males represented in (16%) adjunct faculty.
- Full-time faculty members are predominantly made up of 70% Caucasian and 20% Asian.
- Adjunct faculty members are predominantly made up of 55% Caucasian and 32% Asian.
- 62% of full-time faculty are 50 years or older.
- 64% adjunct faculty are 50 years or older.
- A smaller percentage of full-time faculty (16%) and adjunct faculty (8%) are under the age of 40 years.

TABLE 9: HIGHEST LEVEL OF EDUCATION OF FACULTY, 2008 - 2009

	Number Full-time faculty	Number Adjunct faculty	Total faculty
Highest Level of Education:			
Bachelor of Science (Nursing)	17 (8%)	14 (9%)	31 (9%)
Master in Nursing	133 (64%)	108 (73%)	241 (68%)
PhD / Doctorate	57 (28%)	26 (18%)	83 (23%)
Level of Education (Total)	207 (100%)	148 (100%)	355 (100%)

TABLE 10: DEMOGRAPHIC CHARACTERISTICS OF FACULTY, 2008 - 2009

	Number of Full time faculty	Number of Adjunct faculty	Faculty Total
Gender:			
Female	190 (92%)	125 (84%)	315(89%)
Male	17 (8%)	23 (16%)	40 (11%)
Gender (Total)	207 (100%)	148 (100%)	355 (100%)
Race/Ethnicity:			
African-American	2 (<1%)	1 (2%)	3 (1%)
Caucasian	145 (70%)	36 (55%)	181 (87%)
Asian (<i>break out below</i>)	41 (20%)	21 (32%)	62 (23%)
Chinese	5	0	5
Filipino	12	2	14
Japanese	16	1	17
Korean	1	0	1
Other Asian	0	1	1
Native Hawaiian	8 (4%)	2 (3%)	10 (4%)
Pacific Islander (<i>break out below</i>)	2 (<1%)	0	2 (<1%)
Samoan	1	0	1
Other Pacific Islander	1	0	1
American Indian/Native Alaskan	1 (<1%)	0	1
2 or More Races	3 (1%)	3 (5%)	6 (2%)
Some Other Race	0	1 (2%)	1 (<1%)
Hispanic	4 (2%)	1 (2%)	5 (2%)
Race/Ethnicity (Total)	206 (100%)	65 (44%)	270 (76%)
Age Group:			
24 and under	0	0	0
25-29	2 (<1%)	0	2 (<1%)
30-34	10 (7%)	1 (1%)	11 (4%)
35-39	12 (8%)	7 (7%)	19 (8%)
40-44	14 (9%)	12 (13%)	26 (11%)
45-49	20 (13%)	14 (15%)	34 (14%)
50-54	28 (18%)	12 (13%)	40 (16%)
55-59	34 (22%)	25 (26%)	59 (24%)
60-64	23 (15%)	16 (17%)	39 (16%)
65-69	8 (5%)	5 (5%)	13 (5%)
70+	1 (<1%)	3 (3%)	4 (2%)
Age (Total)	152 (73%)	95 (64%)	247 (70%)

Program Capacity

Survey respondents were asked which, if any, of the following issues are of concern for their program during the 2008-09 school year. Respondents reported most often difficulty filling faculty positions, followed by the availability clinical sites for clinical placements for nursing students, and the lack of classroom space. The predominant issues identified by the institutions surveyed indicate

- Five out of eight programs had difficulty filling faculty positions
- Two programs lack classroom facilities
- Two programs lack clinical sites for student clinical placements
- Two programs lack faculty for clinical placements.

Table 11 highlights the percentage of nursing programs reporting a lack of resources.

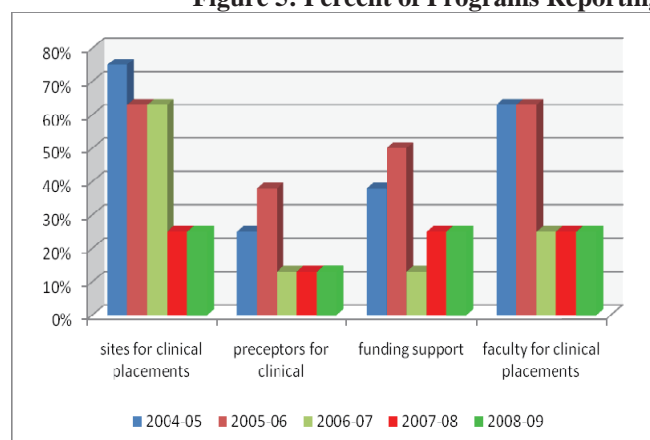
TABLE 11: PERCENT OF NURSING PROGRAMS LACKING RESOURCES, 2008 - 2009

	Full-time Faculty	Clinical sites for clinical placements	Faculty for clinical sites**	Classroom facilities
Percent of nursing programs reporting lack of resources	63%	25%	25%	25%

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

Since 2004 there has been significant improvement in resources to nursing programs in all areas as shown in Figure 5.

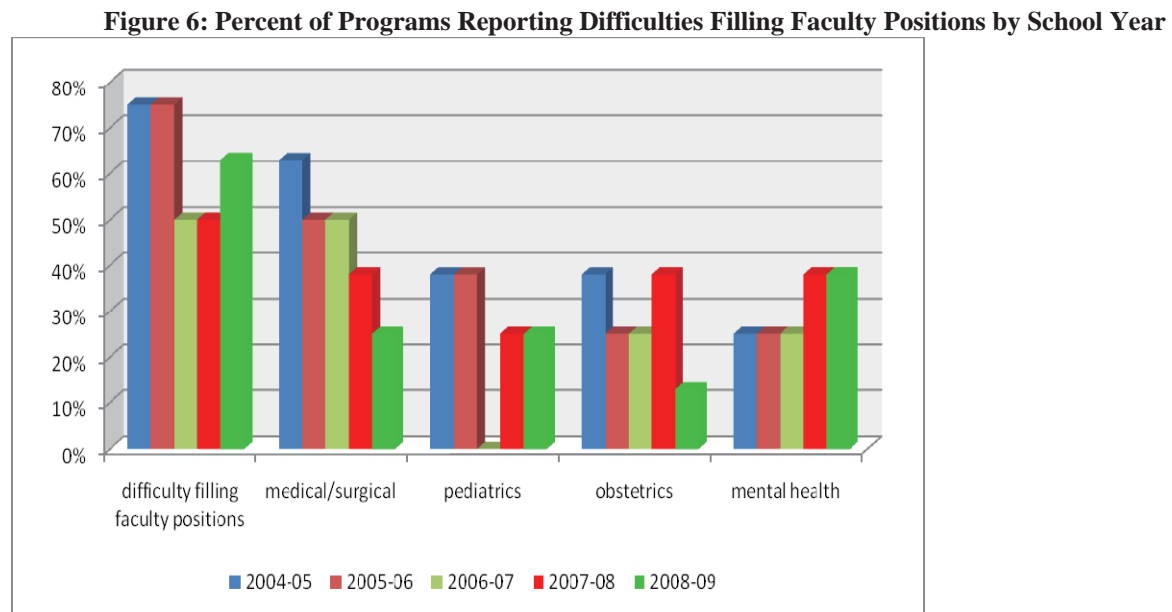
Figure 5: Percent of Programs Reporting a Lack of Resources by School Year



Faculty Positions

As shown in Figure 6, there were also improvements in filling full time faculty positions. However, there remain some difficulties in filling certain specialty areas such as mental health, medical/surgical and pediatrics.

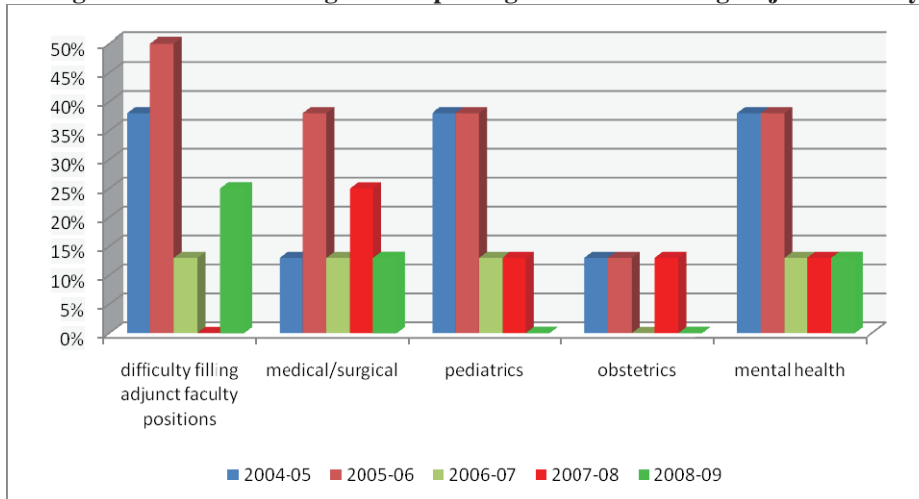
Of those nursing programs reporting difficulty in filling full-time faculty positions, the frequency of difficulty in filling specialty positions was mental health 38%, medical/surgical 25%, pediatrics 25% and obstetrics 13%.



Adjunct Faculty

For 2008-09, six adjunct faculty vacancies were reported by nursing programs. Figure 7 reveals improvements have occurred in filling adjunct faculty vacancies. Some programs continue to report some difficulties in filling adjunct faculty positions in the following specialty areas: medical/surgical 13% and mental health 13%.

Figure 7: Percent of Programs Reporting Difficulties Filling Adjunct Faculty Positions by School Year



Discussion

Four year trend data (2004 – 2008) indicate the number of admission slots in public institutions have increased in most programs. Ladder program growth rates are 22.8%, AS in nursing 5%, BS in nursing 25%, Master in nursing 8.8%, and PhD 8.3%. LPN programs reveal a decline in growth -12.5% in the four year period.

Similarly, over the past four years LPN programs show a decline in the number of qualified applicants' not entering programs -14.7%. Whereas the number of qualified applicants not enrolled show an increased growth rate in the Ladder 37.9%, AS 12%, BS 38.8%, Masters 25% and PhD 58.3% programs. Although there are fluctuations in growth rate over time the data continues to reveal that a significant number of qualified applicants are unable to enroll in certain programs across the State. Factors known to contribute to difficulties in increasing the number of admission slots and filling admission slots in programs include;

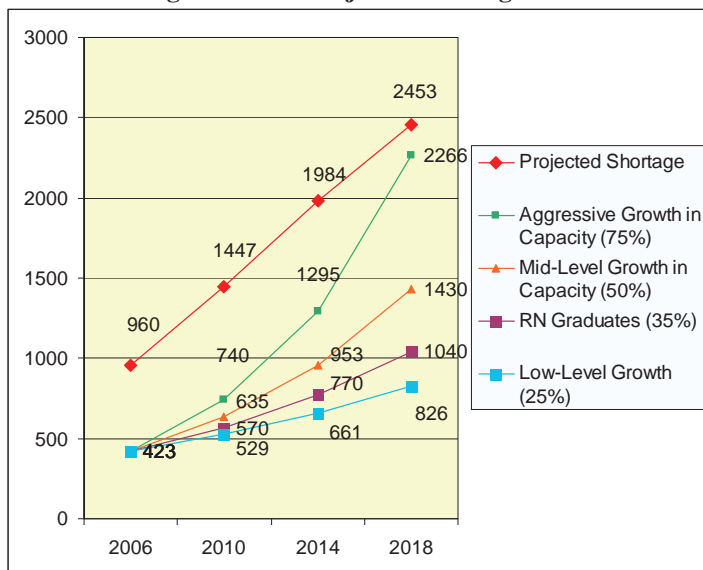
- The immediate capacity of the program (e.g., lack of availability of faculty, facilities, or clinical placement sites to support the approved admission slots),
- Applicant related factors (e.g., too few qualified applicants, affordability of the program for the applicant, enrollment of the applicant in another program).

In the four year period, the growth rate in graduates from registered nursing programs (AS and BS in nursing programs) was 18.4%. LPN program graduates have declined by -22.5%. While the number of Ladder-LPN graduates has grown by 11.7%. Trends in the reduction of graduates from stand alone LPN programs and growth in Ladder program LPN graduates may reflect programmatic changes taking place as some public nursing programs transition to the consortium model that will be introduced in fall 2010.

2008-09 was a year of economic downturn. The downturn did negatively impact job demand. Experts in the field, however, continue to forecast an increase demand for RNs over the next 10 - 15 years. Employment of registered nurses is expected to grow by 22 percent from 2008 to 2018, much faster than the average for all occupations.¹ 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 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 rapidly. However, employment of RNs will not grow at the same rate in every industry. Employment growth is expected to be slower in hospitals. However, job opportunities are still expected to be excellent because of the relatively high turnover of hospital nurses.

In Hawaii the demand for nurses is expected to grow by 19% from 2008 to 2018 as the youngest of the veteran and oldest of the baby boomer generations retire and leave the profession. RN workforce projections for Hawaii² indicate the state will have a shortage of 1,697 RNs by 2012, 1,984 by 2014, and 2,453 by 2018. As Figure 8 demonstrates, nursing programs will have to sustain educational capacity and growth to produce enough graduates to impact the shortage.

Figure 8: The Projected Shortage and Growth in Educational Capacity to Meet Need



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

² LeVasseur, SA. 2007. *Projected Registered Nurse Workforce in Hawaii 2005-2020*. Hawaii State Center for Nursing, University of Hawaii at Manoa, Honolulu, Hawaii. Accessed 09/20/2010, http://hinursing.org/pdf/ProjectedRNWorkforceHawaii_2007.pdf

Conclusion

Programs, such as BS in nursing, have experienced sustained growth in student enrollments and graduates over the past four years. Conversely, the number of qualified applicants not enrolled in programs has continued to grow. In the past four years, qualified applicants not enrolled increased by 23% in the Ladder LPN programs, 5% AS in nursing programs, 25% BS in nursing programs, 9% MSN programs, and 8% in the PhD program suggesting ongoing capacity issues.

Nursing education programs capacity to accept qualified nursing applicants is influenced by availability of faculty, facilities, and clinical placement opportunities. Findings for the 2008-09 school year reveal 62% of full time faculty are 50 years or older with a 4% vacancy rate. Over the next five to ten years approximately 32 (21%) full time faculty and 24 (25%) adjunct faculty aged ≥ 60 years could retire and leave the profession.

The University of Hawaii statewide nursing consortium is set to be implemented in the fall 2010 and may help to address education capacity. The undergraduate nursing curriculum and learning strategies will be redesigned to increase flexibility and accessibility across the UH system. How this initiative will impact capacity is yet to be determined through ongoing evaluation.

