ACADEMIC YEAR 2018-2019

HAWAI'I STATE NURSE EDUCATION CAPACITY REPORT

HAWAI'I STATE
CENTER FOR
NURSING

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Hawaiʻi State Nurse Education Capacity Report

Academic Year 2018-2019

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The Hawaiʻi State Center for Nursing monitors the state of the nursing workforce in Hawaiʻi through the collection and reporting of workforce supply, education capacity, and employer demand data. These three research activities assist entities in the public and private sectors with the development and implementation of initiatives intended to develop a robust nursing workforce that meets the needs of Hawaiʻi's residents now and in the future.

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List of Abbreviations

Abbreviation	Definition
AACN	American Association of Colleges of Nursing
ACS	American Community Survey Program of the U.S. Census Bureau
ADN	associate degree program in nursing
AGPCNP	adult-gerontology primary care nurse practitioner
APRN	advanced practice registered nurse
AY	academic year
AY 17-18	academic year 2017-2018
AY 18-19	academic year 2018-2019
BLS	U.S. Bureau of Labor Statistics
BSN	baccalaureate degree program in nursing
CNM	certified nurse midwife
CNS	clinical nurse specialist
CRNA	certified registered nurse anesthetist
DLIR	Hawai'i Department of Labor and Industrial Relations
DNP	Doctor of Nursing Practice
FNP	family nurse practitioner
GEPN	graduate entry program in nursing
HAH	Healthcare Association of Hawai'i
HBON	Hawai'i Board of Nursing
HSCN or The Center	Hawai'i State Center for Nursing
HWI	Healthcare Workforce Initiative
IOM	Institute of Medicine
LPN	licensed practical nurse
MSN	master's degree program in nursing
NCLEX-PN	National Council Licensure Examination for Practical Nurses
NCLEX-RN	National Council Licensure Examination for Registered Nurses
NCSBN	National Council of State Boards of Nursing
NP	nurse practitioner
PCNP	primary care nurse practitioner
PNP	pediatric primary care nurse practitioner
RN	registered nurse
The Forum	National Forum of State Boards of Nursing

Executive Summary

Pre-License Programs

Demand for admission into Hawai'i's pre-license nurse education programs once again exceeded schools' capacity to admit new students. On average, LPN, ADN, and BSN programs received more than three times as many applications as they had seats for new students. As a result, schools denied admission to nearly two-thirds of all fully qualified applicants.

A total of 551 students enrolled in pre-license programs for AY 18-19. This represents an increase of 3% over AY 17-18. Of the 551 new pre-license students, 84% enrolled in RN (i.e., ADN or BSN) programs.

A total of 531 students graduated from pre-license programs in AY 18-19. This represents a 20% increase in the number of graduates as compared to AY 17-18. Of the 531 graduates, 54% graduated from RN programs. Of the 33 graduates from the state's only GEPN program, 39% completed a program that provided preparation for certification, licensure, and practice as APRNs.

Post-License Programs

Post-license nurse education programs (i.e., RN-to-BSN, MSN, DNP, PhD) received a total of 162 fully qualified applications. Some RN-to-BSN programs reported that their capacity to admit new students was variable depending on enrollment demand, so it is more difficult to determine whether demand exceeds capacity for post-license BSN programs. Among graduate programs, enrollment demand was highest for DNP programs. Enrollment demand for MSN programs decreased by 14% as compared to AY 17-18. This is consistent with a nationwide trend of decreasing demand for MSN programs in favor of the DNP which is the terminal practice degree for nursing.

A total 128 new students enrolled in post-license programs in AY 18-19. This is an increase of 16% over post-license enrollments in AY 17-18. Of the new students enrolled in post-license programs, 51% were RN-to-BSN students.

Though more new students enrolled in post-license programs in AY 18-19 than in AY 17-18, the total student census in post-license programs decreased by 13%. This was due to RN-to-BSN, MSN, and PhD programs admitting fewer students than they gradated the previous year. Only DNP programs reported a larger total student census in AY 18-19 than in AY 17-18.

A total of 115 students graduated from post-license programs in AY 18-19. This is a 15% decrease as compared to AY 17-18. Despite the overall decrease in the number of post-license graduates, DNP programs graduated more than twice as many students in AY 18-19 than in the previous year. Of the 50 students who graduated from MSN or DNP programs, 68% completed programs that provided preparation for APRN certification, licensure, and practice.

Nurse Faculty

Schools reported having a total of 306 funded faculty positions, of which 4% were vacant. This is a 1 percentage point decrease as compared to AY 17-18. Despite a decrease in the overall faculty vacancy rate, the vacancy rate for full-time faculty positions remained at 7%.

Schools reported employing a total of 128 full-time faculty which is a decrease of 7% in the size of the full-time faculty workforce as compared to AY 17-18. Coinciding with the loss of full-time faculty was a 34% increase in the number of part-time faculty over the previous academic year. Anecdotal reports from schools attribute the increase in part-time faculty positions to the need for more clinical faculty to accommodate smaller clinical cohort size maximums and difficulty filling full-time faculty positions.

Challenges Facing Nursing Programs

Three-quarters of all schools of nursing report that a lack of funding for faculty compensation has a negative impact on their existing programs. Nearly 40% of all schools indicated that this was the most serious problem affecting their programs. Insufficient resources for new program development and insufficient clinical training sites were each selected by 25% of schools as being the challenges with the most negative impacts on their programs.

Schools reported using several tactics to reduce the negative effects of challenges on their programs. The most common tactics schools employed were to pursue funding from alternate sources (e.g., grants or partnerships with employers), reducing admissions cohort sizes, and replacing some live clinical experiences with high-fidelity simulation.

Employment Prospects for Graduates of Pre-License RN Programs in Hawaiʻi

Schools and employers have recently expressed concern that Hawaiʻi's nursing job market cannot absorb the number of new graduates that our schools of nursing add to the workforce each year. To address this concern, we used data provided by recent graduates on the 2019 Hawaiʻi Nursing Workforce Supply Survey. Specifically, we compared the employment characteristics of graduates from local RN programs who stayed in Hawaiʻi versus those who left the state after graduation.

If the job market in Hawaiʻi could not absorb the production of new nurses, the data would indicate a large proportion of graduates from in-state schools residing or working outside the state. Further, recent graduates who chose to stay in Hawaiʻi would likely report higher rates of unemployment or longer elapsed times between graduation and getting their first nursing positions. Our 2019 workforce supply data do not suggest any of these situations exist.

Approximately 90% of graduates from Hawaiʻi's in-state programs reported that their primary residential location is in Hawaiʻi[1]. Among the new graduates residing in Hawaiʻi 97% are

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[1] See the full text of reports for caveats to this estimate and limitations of the Supply Survey sample.

employed or choose not to work. Among recent graduate RNs who live outside of Hawai'i, this proportion is 98%. Among Hawai'i recent graduate RNs, 77% reported finding their first nursing position within 12 months of graduating. Among out-of-state recent graduate RNs, this proportion is 75%.

The only notable difference between the two groups is that out-of-state recent graduate RNs are more likely to work in hospitals (77%) than those recent graduates who stayed in Hawai'i (50%). The primary practice location of recent graduate nurses who stayed in Hawai'i reflects the RN workforce as a whole. In 2019, 48% of all RNs employed in Hawai'i reported that their primary employment setting was a location other than a hospital (Hawai'i State Center for Nursing, 2019a, p. 43). These data suggest that new graduates work in non-hospital settings because of a broad shift in the location of care delivery across all of healthcare rather than an oversaturated job market.

These data do not suggest that Hawai'i's schools of nursing are producing more nurses than our employers can absorb. Rather, it appears that having a higher probability of working in acute care hospitals lures local graduates out of the state. It may warrant schools' consideration of how they might motivate their students to remain in Hawai'i after graduation. Perhaps by accurately describing changes in care delivery, highlighting the characteristics of the existing workforce, and emphasizing the vital need for passionate, culturally-competent nurses in our local communities, Hawai'i's in-state schools may see an increase in the number of graduates who choose to practice in Hawai'i.

Introduction to the 2018-2019 Hawaiʻi State Nurse Education Capacity Report

Purpose of the Report

The annual Hawaiʻi State Nurse Education Capacity Report summarizes data about the extent to which local schools of nursing have the capacity to prepare a nursing workforce that meets in-state employment demand for nurses at all levels of practice.

This report provides information about schools' capacity to enroll new students, the number of graduates their programs contribute to the nursing workforce, and factors that adversely impact their programs. Because academic programs are the beginning of the workforce pipeline, a reduction in their capacity to enroll new students and retain them through graduation will result in an eventual decrease in the number of new nurses entering the workforce. In turn, employers will experience difficulty filling vacant or new positions. A persistent inability for employers to fill open nursing positions could adversely impact the population's access to nursing care.

By producing this report annually, the Hawaiʻi State Center for Nursing can make schools, employers, and workforce planners aware of changes in the demand for nurse education, schools' enrollment caps or graduation rates, and the availability of academic programs that support the stability of the statewide nursing workforce.

Theme of This Year's Report

This year, the narrative discussion in the report focuses on what we know about the employment status and characteristics of nurses who graduated from in-state schools between 2015 and 2018. Using data from the 2019 Hawaiʻi Nursing Workforce Supply Survey, the discussion describes how long it took recent graduates to get their first nursing job, in what type of setting they are most likely to be employed, and how many of our locally-educated nurses are working out of state. This discussion is in response to concerns expressed by employers and schools that Hawaiʻi's production of new nurses may be outpacing employment demand and creating a surplus of nurses in the state.

Exclusions from this Year's Report

To streamline this report and focus the reader's attention on data and issues that are specifically relevant to AY 18-19, several elements in last year's report are not included here. Topics that have been excluded are the role of education in eligibility for nurse licensure, the purpose and goals of ADN vs. BSN education and pre-license vs. post-license programs, and the various admissions pathways into nurse education programs. Readers who are interested in those topics are invited to consult last year's report.

Important Notes about the Nurse Education Capacity Survey and this Report

Regarding Institutions Included in this Report

All institutions whose data are included in this report (1) have a physical campus in Hawaiʻi, (2) offered at least one nurse education program at their physical campus during AY 18-19, and (3) are recognized by the Hawaiʻi Board of Nursing as qualified to provide nursing education. In total, eight schools met these criteria.

In addition to the eight schools that comprise Hawaiʻi's in-state schools of nursing, the appendix of this report also includes data about the number of local students enrolled in post-license, degree-leading nurse education programs, including those offered via distance education by Chamberlain University and the University of Phoenix.

Data from the 2019 Hawaiʻi Nursing Workforce Supply Report (Hawaiʻi State Center for Nursing, 2019a) indicate that the majority of nurses who are currently enrolled in a degree-leading, post-license nurse education program are enrolled in online programs offered by out of state institutions. Because of the Center's relationship with local representatives from the nursing programs at Chamberlain University and the University of Phoenix, we were able to obtain data about the number of Hawaiʻi students enrolled in their post-license programs. The contribution that these two schools make to the availability of post-license education for Hawaiʻi nurses is reflected in Appendix D.

Regarding the Terms "School of Nursing" and "Nursing Program"

All academic institutions included in this report are referred to as "schools of nursing" regardless of their formal designation (i.e., school, college, department, or program). The terms "school of nursing" and "school" are used interchangeably throughout the report.

The term "nursing program" refers to an academic program or track offered by a school of nursing that provides preparation for a specific type of nursing practice (e.g., LPN, FNP, etc.). The term "program" and "school" are not used interchangeably.

Regarding the Age of Data in this Report

The data in this report represent the in-state nurse education environment as it existed two academic years ago. In order to obtain accurate information especially about graduates from in-state nursing schools, the Center cannot begin data collection until after the completion of an academic year. Data collection for any given academic year begins near the start of the spring semester of the subsequent academic year and continues until all schools have responded.

For the AY 18-19 report, data collection began in February 2020 and ended in May 2020. The lengthy fielding period was impacted largely by schools' anticipation of and responses to the COVID-19 pandemic. We provide a more detailed discussion of the impacts of the pandemic on this year's report later in the introduction.

Regarding Inclusion and Accessibility

Throughout this report, the term "Filipinx" refers persons of any gender who have ethnic ancestry originating in the Philippine Islands. The term "Latinx" refers to persons of any gender with ethnic ancestry originating in Latin America.

The Center has made a concerted effort to make this document compliant with guidelines for producing accessible electronic documents as provided by the U.S. Department of Health and Human Services. There may, however, be tables in the report that are difficult to interpret using screen readers or other assistive technology. If you have difficulty accessing any of the content of this report, please contact the Hawaiʻi State Center for Nursing at hscndata@hawaii.edu to request the content of this report in an alternate format.

Regarding the Effects of the COVID-19 Pandemic on Data Collection

On February 13, 2020, the Center's researcher emailed the chief administrators of all in-state schools of nursing to solicit their participation in the AY 18-19 Education Capacity Survey. In the invitation to participate, the researcher asked school administrators to submit their completed surveys by March 15, 2020.

Because of warnings from World Health Organization (2020) and the U.S. Department of Health & Human Services (2020) about the public health emergency created by COVID-19, our schools of nursing had begun planning their responses to the pandemic well before Governor Ige shut down the state to non-essential business on March 23 (Office of the Governor of the State of Hawaiʻi, 2020). Because schools had to divert significant resources to the development and implementation of their responses to the pandemic, the original survey submission deadline of March 15 was infeasible for most schools. As such, the Center extended the fielding deadline to May 31.

Although every nursing school in Hawaiʻi submitted a completed survey, many schools were unable to provide demographic data, especially for LPN and ADN students and for faculty. Though these data are generally available from campuses' offices of institutional research (IR), schools' faculty and staff had to quickly convert face-to-face courses to online courses, ensure that seniors would be able to meet graduation requirements, and plan for future semesters in an uncertain environment all while working from home. As such, schools lacked the capacity to request data from their campus IR offices which resulted in a high rate of non-reporting of demographic data.

Despite the high incidence of missing demographic information, schools did report all capacity-related data including availability of seats for new students, qualified applications, admissions, and enrollments. As such, we are confident that the data in this report accurately represent the capacity of schools throughout the state to educate new nurses and support the educational progression of the incumbent workforce.

Overview of Nurse Education Programs Offered in Hawai‘i

Accreditation, Board Approval, & Tax Classification of Schools of Nursing

All eight in-state schools of nursing offer one or more programs that have been accredited by the Accreditation Commission for Education in Nursing (ACEN) or the Commission on Collegiate Nursing Education (CCNE). National accreditation provides assurance to prospective students, employers, and HBON that graduates from a given program have been educated in accordance with a set of clearly defined standards for quality nurse education.

In addition to their accreditation, all in-state schools are approved by HBON pursuant to the Hawai‘i Administrative Rules Chapter 16-89, subchapter 6. Each fall, schools are required to submit an annual report to HBON which summarizes the characteristics of their program curricula, faculty qualifications, first-time pass-rates for the relevant NCLEX examination, and the proportion of clinical education that is offered by simulation (Hawai‘i State Board of Nursing, 2017).

There are no for-profit-schools of nursing located in Hawai‘i. Of the eight in-state schools, six are governed by the University of Hawai‘i System, the only public post-secondary education system in the state. The remaining two schools are private institutions with not-for-profit federal tax designations.

Table 1. Accreditation Status and Federal Tax Classification of Hawai‘i Schools of Nursing

School Name	Accreditation		Federal Tax Classification		
	ACEN	CCNE	Public	Not for Profit	For Profit
Number of Schools (State)	**5**	**4**	**6**	**2**	**0**
City & County of Honolulu					
Chaminade University		✓		✓	
Hawai‘i Pacific University		✓		✓	
Kapi‘olani Community College	✓		✓		
University of Hawai‘i at Mānoa		✓	✓		
County of Hawai‘i					
Hawai‘i Community College	✓		✓		
University of Hawai‘i at Hilo	✓	✓	✓		
County of Maui					
University of Hawai‘i Maui College	✓		✓		
County of Kauai					
Kaua‘i Community College	✓		✓		

Note. University of Hawai‘i at Hilo's BSN program is accredited by ACEN and their DNP program is accredited by CCNE.

Types of Nursing Programs Available in Hawai‘i

Hawai‘i's nursing students have access to all types of nursing academic programs ranging from an LPN Certificate to a PhD in nursing.

Though the full range of nurse education is available in the state, the City & County of Honolulu (referred to as Honolulu County throughout this report for brevity) has the largest number of post-secondary institutions and nursing

programs of all the counties. It is also the only county in which a student may earn any of the six types of nursing academic awards. Prospective nurses in Hawai'i County have fewer schools to choose from, but they also have access to all types of nursing academic programs except the MSN and PhD.

In contrast, prospective nurses in Maui and Kaua'i Counties have local access to only LPN and ADN programs. Although there is no option to pursue a pre-license BSN in either county, ADN graduates have the option of immediately transitioning into a post-license BSN program through the University of Hawai'i's nursing consortium. The consortium allows ADN graduates in Maui and Kaua'i Counties to complete an RN-to-BSN program taught by University of Hawai'i at Mānoa faculty via distance education. Despite the availability of an efficient pathway directly from the ADN to the BSN, most of Maui and Kaua'i's ADN students opt to enter the workforce upon graduation rather than continuing their education. As a result, the proportion of RNs who have earned BSN degrees is markedly lower in Maui and Kaua'i Counties than it is in Honolulu or Hawai'i Counties (Hawai'i State Center for Nursing, 2019a).

Table 2. Academic Awards in Nursing Offered by Institution

School Name	LPN. Cert.	ADN	BSN	MSN	DNP	PhD
Number of Schools (State)	**4**	**4**	**4**	**2**	**3**	**1**
City & County of Honolulu						
Chaminade University			✓			
Hawai'i Pacific University			✓	✓	✓	
Kapi'olani Community College	✓	✓				
University of Hawai'i at Mānoa			✓	✓	✓	✓
County of Hawai'i						
Hawai'i Community College	✓	✓				
University of Hawai'i at Hilo			✓		✓	
County of Maui						
University of Hawai'i Maui College	✓	✓				
County of Kauai						
Kaua'i Community College	✓	✓				

Three of Hawai'i's eight schools of nursing offer graduate nursing education in two counties. All types of graduate degree programs in nursing (MSN, DNP, PhD) are available across the offerings from two schools in Honolulu County. In Hawai'i County, one school offers a DNP program. All types of graduate degree programs are offered by at least one school at least in part via distance education. This allows all nurses in Hawai'i access to graduate education regardless of where they live.

Students who pursue graduate education in nursing from one of Hawai'i's in-state institutions may obtain preparation for practice as population health RNs, FNPs, or AGNPs in either primary or acute care. For nurses who are interested in administration, one DNP program provides an emphasis in organizational leadership.

Table 3. Graduate Nurse Education Programs Offered by Institution

	Hawai'i Pacific University	University of Hawai'i at Hilo	University of Hawai'i at Mānoa
Master's Degree Programs			
Specialty RN			
Advanced Population Health Nursing			✓
APRN			
Adult-Gerontology CNS			✓
Adult-Gerontology Acute Care NP	✓		
Family NP	✓		
Doctor of Nursing Practice Programs			
General DNP			
DNP	✓		
APRN			
Adult-Gerontology Primary Care NP			✓
Family NP		✓	✓
Non-Clinical			
Organizational Leadership			✓

Note. The University of Hawai'i at Mānoa graduated previously-enrolled students from its CNS Master's program but did not enroll new students.

Capacity, Enrollment Demand, and Production in Pre-License Programs

Enrollment Demand and Capacity

As has been the case for at least the last three academic years, enrollment demand for pre-license programs exceeded capacity. Schools reported receiving a total of 1,785 fully qualified applications to pre-license (i.e., LPN, ADN, BSN, and GEPN) programs. Schools received as many as 680[2] more fully qualified applications to pre-license programs for AY 18-19 than they received for AY 17-18 (Hawai'i State Center for Nursing, 2019b). Enrollment demand for LPN, ADN, and BSN programs substantially exceeded capacity. These programs received an average of 3.2 fully qualified applications per new student opening. As a result, 65% of applicants to these programs were denied admission because of capacity constraints.

The state's only GEPN program was the only pre-license program in which overall enrollment demand was less than the program's capacity to enroll new students. In total, the GEPN program received 49 fully qualified applications for 63 openings for new students. Although overall enrollment demand for the GEPN program was less than total capacity, enrollment demand was not equal for both degree tracks within the GEPN program. Upon application, students indicate whether they intend to complete an MSN or a DNP. The MSN track received fewer applications than there were openings for new students (0.6 applications per opening). In contrast, enrollment demand for the DNP track slightly exceeded capacity for new students (1.1 applications per opening).

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[2] The number of fully qualified applications received by LPN and ADN programs for AY 17-18 was underreported by an unknown amount. As such, 683 is the highest possible difference between the number of pre-license applications received by schools for AY 18-19 vs. AY 17-18. The actual increase between the two years is likely lower, but by an amount that cannot be confidently estimated.

New Admissions and Enrollments

Schools of nursing admitted 685 applicants into pre-license programs in AY 18-19. This is amounts to a 51-student increase (8%) in admissions between AY 17-18 and AY 18-19.

Customarily, schools will offer admission to more students than they have the capacity to enroll because many students who are admitted do not register for classes. In AY 18-19, 551 students enrolled in pre-license programs, which represents 80% of admitted applicants. Though pre-license programs admitted 8% more students in AY 18-19 than in the previous year, actual enrollments in AY 18-19 exceeded AY 17-18 enrollments by only 16 students[3], which represents an increase of 3%.

Table 4. Applicants & Enrollments for Pre-License Nursing Programs

	LPN	ADN	BSN[4]	GEPN
Available Openings	70	132	337	63
Qualified Applications	206	470	1,060	49
Applications Received per Available Opening	2.9	3.6	3.1	0.8
Admissions Offered	70	130	445	40
Acceptance Rate*	34%	28%	42%	82%
New Students Enrolled	70	132	309	40

Note. Data in the GEPN column represent the aggregate of the MSN and DNP tracks. Because enrollment demand and capacity were not equal in the two tracks, the aggregate suggests that fewer students were accepted than the program had the capacity to admit. Examination of the data by track, however, indicates that the maximum number of DNP students were admitted. *Calculated as (#Admissions Offered/# Qualified Applicants).

Total Student Census

Distribution of Students across Programs

In AY 18-19, 1,254 students were enrolled in Hawaiʻi's pre-license nurse education programs. This is a decrease of 41 students (3%) between AY 17-18 and AY 18-19. Of the students enrolled in pre-license programs, 64% were BSN students, 20% were ADN students, 10% were GEPN students, and 6% were LPN students. Overall, ADN and BSN (i.e., pre-license RN) students accounted for 84% of all students enrolled in pre-license nursing programs in AY 18-19.

Student Demographic Characteristics

As discussed in the introduction to this report, the overlap of the fielding period for the Education Capacity Survey with the onset of the COVID-19 pandemic resulted in a high degree of missing demographic data for LPN and ADN programs. As such, we will refrain from

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[3] All four community colleges offer LPN Certificates of Achievement. On the AY 17-18 Education Capacity Survey, only two community colleges reported data on LPN programs. However, on the AY 18-19 survey, all four community colleges reported data LPN data. The increases in overall pre-license capacity, admissions, and enrollments

is, in part, attributable to the addition of two schools' LPN data rather than actual increases in capacity.

[4] LPN-to-BSN and traditional pre-license BSN programs are included in the BSN counts as both programs produce new graduates to RN practice who are initially prepared at the baccalaureate level.

commenting on the demographic characteristics of students in these programs.

Pre-license BSN students continue to be predominantly female (85%) and either multiracial (22%) or Filipinx (17%). The proportion of Caucasian BSN students (7%) is substantially lower than the proportion of Caucasian RNs in the workforce (28%) (Hawai'i State Center for Nursing, 2019a, p. 41). The proportion of BSN students who are Native Hawaiian remains the same (13%) as in AY 17-18.

Among GEPN students, nearly 1 in 5 are male. GEPN students are as likely to be multiracial (22%) as Caucasian (23%), and are less likely to be Filipinx (14%). The proportion of GEPN students who are Native Hawaiian is the same (12%) as in AY 17-18.

Graduates

In total, 531 new nurses graduated from pre-license programs in AY 18-19. This is an increase of 87 graduates (20%) as compared to AY 17-18.

The majority (54%) of pre-license program graduates in AY 18-19 completed BSN programs. ADN, LPN, and GEPN students accounted for 27%, 12% and 6% of pre-license graduates, respectively. Over 60% of all graduates from LPN and ADN programs graduated from neighbor island schools.

Of the 33 GEPN students who completed their graduate education in AY 18-19, 52% earned their MSN and 48% completed a DNP. Across MSN and DNP tracks, 39% completed a degree program that provided preparation for APRN practice and 27% completed a specialty RN program in population health nursing.

Table 5. Demographic Characteristics of Pre-License Nursing Students

Demographic Characteristic	LPN		ADN		BSN		GEPN	
	#	%	#	%	#	%	#	%
Gender Total	**70**	**100%**	**255**	**100%**	**799**	**100%**	**130**	**100%**
Female	42	60%	123	48%	678	85%	107	82%
Male	3	4%	25	10%	121	15%	23	18%
Other/Nonbinary	0	0%	0	0%	0	0%	0	0%
Unknown/Missing	25	36%	107	42%	0	0%	0	0%
Race/Ethnicity Total	**70**	**100%**	**255**	**100%**	**799**	**100%**	**130**	**100%**
Multiracial	5	7%	10	4%	172	22%	29	22%
White	7	10%	5	2%	55	7%	30	23%
Black/African American	0	0%	0	0%	9	1%	4	3%
American Indian/Alaska Native	0	0%	0	0%	5	1%	3	2%
Chinese	0	0%	0	0%	17	2%	5	4%
Filipinx	11	16%	4	2%	134	17%	18	14%
Japanese	0	0%	1	0%	38	5%	9	7%
Korean	0	0%	0	0%	6	1%	6	5%
Other Asian	1	1%	1	0%	122	15%	4	3%
Native Hawaiian	0	0%	3	1%	102	13%	15	12%
Samoan	0	0%	0	0%	5	1%	0	0%
Other Pacific Islander	0	0%	0	0%	7	1%	3	2%
Some Other Race/Ethnicity	1	1%	1	0%	15	2%	1	1%
Unknown/Missing	45	64%	230	90%	112	14%	3	2%
Hispanic/Latinx Origin	**70**	**100%**	**255**	**100%**	**799**	**100%**	**130**	**100%**
Hispanic/Latinx	1	1%	0	0%	16	2%	6	5%
Non-Hispanic/Latinx	0	0%	25	10%	264	33%	124	95%
Unknown/Missing	69	99%	230	90%	519	65%	0	0%
Age Total	**70**	**100%**	**255**	**100%**	**799**	**100%**	**130**	**100%**
20 Years or Younger	1	1%	25	10%	192	24%	0	0%
21 Years to 25 Years	8	11%	0	0%	241	30%	24	18%
26 Years to 30 Years	9	13%	0	0%	76	10%	51	39%
31 Years to 40 Years	5	7%	0	0%	39	5%	44	34%
41 Years to 50 Years	1	1%	0	0%	15	2%	11	8%
51 Years to 60 Years	0	0%	0	0%	3	0%	0	0%
61 Years and Older	0	0%	0	0%	0	0%	0	0%
Unknown/Missing	46	66%	230	90%	233	29%	0	0%

Table 6. Graduates from Pre-License Nursing Programs

	LPN	ADN	BSN	GEPN
Program Graduates	65	142	291	33
% of Graduates from Neighbor Island Schools	62%	61%	16%	0%

Capacity, Enrollment Demand, and Production in Post-License Programs

Enrollment Demand and Capacity

Demand for post-license nurse education is lower, overall, than the demand for pre-license education. In general, post-license programs are intended to support the academic advancement of nurses who are already in the workforce. Incumbent nurses may choose to pursue post-license education because they are interested in expanding their scope of practice, deepening their clinical judgment, or pursuing professional advancement opportunities that require higher levels of education.

In total, post-license programs received 162 fully qualified applications. This is an increase of seven applications (5%) between AY 17-18 and AY 18-19. Slightly less than half (47%) all post-license applications were submitted to RN-to-BSN programs. DNP, MSN, and PhD programs each received 28%, 22%, and 3% of all post-license program applications, respectively.

Enrollment demand either equaled[5] or exceeded post-license programs' capacity to admit new students. The only exception was the case of MSN programs which received an average of 0.7 applications per opening for new students. Enrollment demand for MSN programs has declined in Hawai'i and the nation over the last several years in favor of the DNP which is the terminal practice degree in nursing. In AY 18-19, Hawai'i's DNP programs received an average of 1.2 applications per new student opening.

Table 7. Applicants & Enrollments for Post-Licensure Nursing Programs

	RN-to-BSN	MSN	DNP	PhD
Available Openings	76[*]	52	37	4
Qualified Applications	76	36	46	4
Applications Received per Available Opening	--[*]	0.7	1.2	1.0
Admissions Offered	76	35	34	4
Acceptance Rate**	100%	97%	74%	100%
New Students Enrolled	68	30	26	4

Note. [*]At least one institution reported that available seats for new students was variable depending on enrollment demand and availability of clinical faculty. As such, the number of qualified applications received by RN-to-BSN programs substitutes for the number of openings for new students. The ratio of applications per opening is not reported because of this substitution. **Calculated as (#Admissions Offered/# Qualified Applicants).

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[5] At least two RN-to-BSN programs indicated that their enrollment capacity was variable depending on enrollment demand and the availability of part-time faculty. Enrollment capacity for these schools is, therefore, equal to enrollment demand.

New Admissions and Enrollments

In total, post-license programs admitted 149 new students in AY 18-19. This is an increase of 6 six students (4%) as compared to AY 17-18. Two-thirds of this increase is accounted for by the admission of four students to the state's only PhD program which did not admit new students in AY 17-18. The majority (51%) of post-license admissions were offered to applicants to RN-to-BSN programs.

As was the case for pre-license programs, in anticipation that some admits would not register for classes, post-license programs admitted more students than they had the capacity to enroll. Of the 149 admitted applicants 128 (86%) enrolled in classes in AY 18-19. This is 18 more enrollments (16%) than in AY 17-18.

Total Student Census

Changes between AY 17-18 and AY 18-19

In AY 18-19, 224 students were enrolled in post-license programs which is 34 fewer students than were enrolled in post-license programs in the previous year. The loss of 13% of the total post-license student census is explainable in part by a net loss of 24 students from RN-to-BSN, MSN, and PhD programs as a result of fewer new students being admitted than who graduated in the previous year. However, this net loss is partially offset by a net gain of 17 DNP students between the two academic years. The remainder of the decrease in the total post-license student census is likely attributable to attrition due to reasons not collected on the Education Capacity Survey.

Student Demographic Characteristics

The demographic characteristics of post-license graduate degree students reflects the demographic composition of the incumbent nursing workforce. RN-to-BSN students are more likely to be of Filipinx ancestry than any other ethnic or racial group which is consistent with the proportion (33%) of persons of Filipinx ancestry in the existing RN workforce (Hawai'i State Center for Nursing, 2019a, p. 41). In contrast, nurses in MSN and DNP programs are most likely to be either multiracial or Caucasian which, again, reflects that 63% of all APRNs in the state identify as either multiracial or Caucasian (Hawai'i State Center for Nursing, 2019a, p. 59).

Although multiracial persons are well represented in MSN and DNP programs, they are less well represented in the state's only PhD program. More than half of all enrolled PhD students are of Caucasian ancestry. Despite the underrepresentation of most ethnic groups in the PhD program, persons of Native Hawaiian ancestry comprise 16% of PhD students which is substantially higher than in any other type of graduate degree program in nursing.

Table 8. Demographic Characteristics of Post-License Nursing Students

Demographic Characteristic	RN-to-BSN		MSN		DNP		PhD	
	#	%	#	%	#	%	#	%
Gender Total	**90**	**100%**	**54**	**100%**	**61**	**100%**	**19**	**100%**
Female	73	81%	38	70%	48	79%	16	84%
Male	16	18%	14	26%	6	10%	3	16%
Other/Nonbinary	0	0%	0	0%	0	0%	0	0%
Unknown/Missing	1	1%	2	4%	7	11%	0	0%
Race/Ethnicity Total	**90**	**100%**	**54**	**100%**	**61**	**100%**	**19**	**100%**
Multiracial	17	19%	20	37%	13	21%	2	11%
White	10	11%	8	15%	18	30%	10	53%
Black/African American	0	0%	0	0%	0	0%	1	5%
American Indian/Alaska Native	4	4%	0	0%	1	2%	1	5%
Chinese	2	2%	0	0%	1	2%	1	5%
Filipinx	32	36%	7	13%	8	13%	0	0%
Japanese	3	3%	4	7%	8	13%	1	5%
Korean	2	2%	1	2%	3	5%	0	0%
Other Asian	1	1%	4	7%	1	2%	0	0%
Native Hawaiian	6	7%	3	6%	6	10%	3	16%
Samoan	0	0%	0	0%	0	0%	0	0%
Other Pacific Islander	0	0%	0	0%	0	0%	0	0%
Some Other Race/Ethnicity	4	4%	0	0%	1	2%	0	0%
Unknown/Missing	9	10%	7	13%	1	2%	0	0%
Hispanic/Latinx Origin	**90**	**100%**	**54**	**100%**	**61**	**100%**	**19**	**100%**
Hispanic/Latinx	6	7%	1	2%	1	2%	0	0%
Non-Hispanic/Latinx	83	92%	51	94%	25	41%	19	100%
Unknown/Missing	1	1%	2	4%	35	57%	0	0%
Age Total	**90**	**100%**	**54**	**100%**	**61**	**100%**	**19**	**100%**
20 Years or Younger	0	0%	0	0%	0	0%	0	0%
21 Years to 25 Years	25	28%	0	0%	0	0%	0	0%
26 Years to 30 Years	22	24%	7	13%	8	13%	2	11%
31 Years to 40 Years	27	30%	7	13%	24	39%	5	26%
41 Years to 50 Years	9	10%	4	7%	10	16%	3	16%
51 Years to 60 Years	4	4%	2	4%	8	13%	3	16%
61 Years and Older	2	2%	0	0%	4	7%	6	32%
Unknown/Missing	1	1%	34	63%	7	11%	0	0%

Graduates

In AY 18-19, 115 students graduated from post-license nurse education programs. This represents a decrease of 20 graduates (15%) as compared to AY 17-18. All types of post-license programs except DNP programs reported fewer graduates in AY 18-19 than in the previous academic year. Specifically, RN-to-BSN, MSN, and PhD programs respectively graduated 29%, 15% and 30% fewer students in AY 18-19 than in the previous year. In contrast, the number of DNP graduates in AY 18-19 was more than twice the number of students who graduated AY 17-18.

Of the 50 students who completed MSN or DNP programs, 34 (68%) completed programs that provided preparation for APRN certification, licensure, and practice. Of these, 24 graduates completed programs that provided preparation for practice as primary care NPs (i.e., FNP or AGPCNP).

Table 9. Graduates from Post-Licensure Nursing Programs

	RN-to-BSN	MSN	DNP	PhD
Program Graduates	58	29	21	7
% of Graduates from Neighbor Island Schools	26%	0%	52%	0%

Note. There are no MSN or PhD programs on neighbor islands. See Table 1 for types of programs offered in each county.

New Graduate RN Employment Prospects amid Concerns of an RN Surplus

Background

The primary goal of this report is to examine the extent to which our in-state schools of nursing have the capacity to educate the new nurses we need to keep our healthcare delivery systems operating. To make this determination, it is important to place schools' capacity and graduation data in the context of the job market.

Employment demand – that is, the number of nurses that employers plan to hire – is arguably the best indication of the alignment between schools' production of new nurses and the job market. In general, there is cause for concern if schools of nursing persistently produce substantially fewer or substantially more new graduates than employers need to hire. When schools produce too few nurses, we run the risk of a workforce shortage. If schools produce too many new nurses, we run the risk of a surplus.

Nursing workforce shortages are problematic because they mean that there may be too few nurses to respond to the healthcare needs of a population. As alarming as nursing shortages are, nursing surpluses are also worrisome. The overproduction of new graduate nurses poses practical, financial, and ethical concerns for schools, employers, and students.

Recently, our schools and employers have expressed worry that Hawai'i's schools may be overproducing new graduate nurses which may, in turn, be creating an impending surplus. In last year's Education Capacity report we compared

schools' production of new graduate RNs to the job market using the results from the Healthcare Association of Hawai'i's (HAH) Healthcare Workforce Initiative Report (2019). The report provided estimates of the number of existing vacancies in dozens of patient-facing, non-physician healthcare professions, including nursing. Our conclusion based on those data was that Hawai'i's RN workforce was in a state of equilibrium in which the production of new nurses approximately matched existing and projected employment demand. HAH plans to conduct this study on a biennial basis, so new data will not be available until the end of 2021.

In the absence of new employer demand data, this year we address the question of whether Hawai'i may be overproducing RNs[6] by examining the employment characteristics of recently graduated RNs who completed the 2019 Hawai'i Nursing Workforce Supply Survey. We have chosen to compare new graduate RNs who completed their initial RN education program in Hawai'i and remained in the state after graduation to those students who left the state. By comparing the employment characteristics of Hawai'i graduates who left the state to those who stayed, we may be able to cull some insight about whether and why our new graduate nurses may be leaving the state for work.

Data Source and Sample

Our analysis includes data from 678 RNs who graduated from a pre-license RN program located in Hawai'i between 2015 and 2018[7] and who completed the 2019 Hawai'i Nursing Workforce Supply Survey[8]. All nurses who responded to the survey provided information about their current employment status, primary employment setting, job satisfaction, and their career plans for the next 5 years. Additionally, recently graduated RNs also reported how much time elapsed between graduation and obtaining their first nursing position.

To compare the employment characteristics of nurses who remained in Hawai'i after graduation to those who left, nurses were classified into two groups based on their primary employment location (in Hawai'i or out of state). The exception to this grouping was in the examination of employment status. In this comparison, nurses were grouped by their primary residential location so that nurses who were not employed could be included in the comparison.

Findings

Of the recently graduated RNs in the sample, 90% reported a primary residential location in Hawai'i. Among those who live in Hawai'i, 97% reported being employed or that they are not working by choice. Among recent

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[6] LPNs and APRNs are excluded from this discussion because there are well-documented shortages of both LPNs and primary care NPs in the state, both of which were a focus of last year's report.
[7] The sample distribution by graduation year is 2015=25%; 2016=27%; 2017=24%; 2018=25%.
[8] Nurses gain access to the survey when they renew their licenses in odd-numbered years. As such, only those nurses who hold a Hawai'i

nursing license, who renewed their Hawai'i license, and completed the survey are included in the data. The survey excludes any graduate from a Hawai'i school of nursing who never obtained a Hawai'i license. These data, therefore, may underrepresent the proportion of new graduate nurses who were educated in Hawai'i but left the state for work.

graduates who live outside of Hawai'i, this proportion was 98%. These data indicate that most graduates from Hawai'i's schools of nursing either remain in the state after graduation or leave the state and return to Hawai'i within four years. These data further indicate that recently graduated RNs who remain in Hawai'i are not systematically more likely to be involuntarily unemployed than nurses who left the state.

Table 10. Employment Status of Recently Graduated RNs

Employment Status	Hawai'i	Out-of-State
Employed	93%	98%
Self-Employed	2%	0%
Unemployed/Unable to Work	2%	0%
Choose Not to Work	2%	2%

Recently graduated RNs employed in Hawai'i took about the same amount of time to find their first nursing job as those recent graduates who left the state. Among both in-state and out-of-state recently graduated RNs, the largest proportion (30%) reported finding their first nursing position within 3 to 6 months of graduation. About 75% of nurses in both groups reported being employed in their first nursing position within a year of graduating.

Recently graduated RNs who left Hawai'i are more likely to be employed in acute care hospitals than those who remained in Hawai'i. Among recent graduates who left Hawai'i, 77% are employed in hospitals while only 3% are employed in post-acute/long-term care settings. In contrast, 50% of recent graduates who remained in Hawai'i

report working in hospitals while 21% report working in post-acute/long-term care settings.

Table 11. Primary Employment Setting Type of Recently Graduated RNs

Employment Setting Type	Hawai'i	Out-of-State
Acute Care Hospital	50%	77%
Post-Acute/LTC Facility	21%	3%
Ambulatory Care Setting	12%	7%
Home Health/Hospice	6%	3%
All Other Settings	11%	10%

Recently graduated RNs who left Hawai'i indicated being in their positions for slightly less time than those who remained in the state. Out-of-state recent graduates were slightly more likely than in-state recent graduates to report being "very satisfied" with in their current primary position. However, similar proportions of in-state and out-of-state nurses reported being "very satisfied" or "satisfied" in their current role. Despite being slightly more likely to be very satisfied in their primary employment position, out-of-state recent graduates were slightly more likely than in-state recent graduates to indicate plans to leave their current position or the profession of nursing within the next 5 years.

Table 12. Length of Time in Current Position for Recently Graduated RNs

Length of Time in Current Position	Hawai'i	Out-of-State
Less than 1 Year	43%	49%
1 Year to <3 Years	47%	44%
Longer than 3 Years	9%	7%

Table 13. Recently Graduated RNs' 5-Year Plan

Career Plans for the Next 5 Years	Hawai'i	Out-of-State
Stay in Current Position	29%	25%
Change Specialty	41%	44%
Management/Administration	8%	8%
Leave Nursing Profession	1%	3%
Unsure	11%	6%
Other	11%	12%

Table 14. Level of Job Satisfaction among Recently Graduated RNs

Satisfaction with Primary Employment Position	Hawai'i	Out-of-State
Very Satisfied	34%	39%
Satisfied	33%	29%
Neutral	26%	27%
Dissatisfied	5%	3%
Very Dissatisfied	2%	2%

Note. 66% of Hawai'i RNs and 67% of out-of-state RNs are satisfied or very satisfied in their current primary position.

Discussion

Overall, data provided by recent graduates on the 2019 Nursing Workforce Supply Survey do not indicate the existence of an RN surplus, an exodus of local students to the continent, or a saturated new graduate RN job market in Hawai'i. Said differently: there is no evidence that Hawai'i's schools of nursing are producing more new graduate RNs than the job market can absorb. Rather, new graduate RNs seem to prefer working in hospitals and their chances of working in hospitals improve if they are willing to leave the state.

Evidence of overproduction would manifest in a large proportion of graduates leaving the state shortly after graduation. As a decisive majority of local graduates indicate that they live in Hawai'i within 4 years after graduation, the data do not suggest that Hawai'i's job market is losing large proportions of recently graduated RNs to out of state employers.

Further evidence of schools' overproduction of new graduate RNs would likely result in a longer time-to-initial-nursing-employment among in-state recent graduates than out-of-state recent graduates. As three-quarters of both groups indicated being employed within 12 months of graduation and about half of both groups reported being employed within 6 months, the data do not suggest that Hawai'i's new graduate job market is especially inhospitable to new graduate RNs. Examination of other employment characteristics of recently graduated RNs indicates no differences between in-state and out-of-state nurses that would suggest that out-of-state nurses have better post-graduation job prospects.

The only notable difference between in-state and out-of-state recently graduated RNs is that out-of-state recent graduates are more likely to work in acute care hospitals and less likely to work in post-acute/long-term care than in-state recent graduates. Employment in hospitals may be desirable, especially for new graduate nurses for many reasons. Hospitals often permit nurses to work at a faster pace, treat a wider variety of patients and therefore use a broader range of clinical skills, and manage lower patient-to-nurse

ratios than do post-acute/long-term care settings. Additionally, hospitals often have more resources to support RNs' initial transition into practice through formalized new graduate nurse residency programs than do post-acute/long-term care employers.

Though new graduates may want to work in hospitals immediately after graduation, job opportunities for new graduates in Hawai'i are disproportionally available in post-acute/long-term care settings. Employers in the post-acute/long-term care sector regularly hire new graduate RNs in part because of consistent vacancies resulting from high turnover. New graduate RNs may take their first job in post-acute/long-term care settings because of job availability but start to leave for employment in hospitals within two years (Hawai'i State Center for Nursing, 2020). The continual turnover of the post-acute/long-term care workforce leaves a continual entry point for new graduates in the post-acute/long-term care sector.

That initial employment opportunities for new graduate RNs are disproportionally available in post-acute/long-term care settings aligns with a general pattern of RN jobs moving out of hospitals and into community-based settings. In 2019, 48% of all RNs employed in Hawai'i worked in settings other than hospitals (Hawai'i State Center for Nursing, 2019a, p. 44). Though new graduates are more likely (21%) than rest of the RN workforce (11%) to work in post-acute/long-term care, recent graduates are not systematically less likely than the entire RN workforce to be employed in hospitals.

Overall, data from the 2019 Nursing Workforce Supply Survey indicate that graduates of Hawai'i's schools of nursing have good local job prospects *if* they are willing to work in post-acute/long-term care. New graduates who are unwilling to work in post-acute/long-term care or who want to increase their odds of working in a hospital shortly after graduation may be enticed away from Hawai'i to places in which the majority of RNs still work in hospitals. For new graduates from in-state programs who are willing to work in community-based settings outside of hospitals, the job outlook is optimistic.

Nurse Faculty in Academic Year 2018-2019

Faculty Positions and Vacancies

During AY 18-19, Hawai'i's schools of nursing reported that they had a total of 306 funded faculty positions. This represents an increase of 31 funded faculty lines (10%) as compared to AY 17-18. Of these positions, schools reported that 11 (4%) were vacant and being actively recruited for during AY 18-19. This represents a decrease in the overall faculty vacancy rate of one percentage point as compared to AY 17-18. Though the overall faculty vacancy rate decreased between the last two academic years, the full-time faculty vacancy rate remained the same (7%).

Though schools reported a net increase in funded faculty positions, they also reported 7% fewer full-time faculty positions in AY 18-19 than in the previous year. In AY 17-18, full-time faculty accounted for 52% of all faculty positions. In AY 18-19, full-time faculty held only 43% of all faculty positions. The decrease in full-time faculty coincides with a 34% increase in the number of filled part-time faculty positions. It is not clear from our data whether the increase in part-time faculty

positions has reduced schools' total instructional FTEs. Future Education Capacity Surveys may ask schools specifically about the relationship between changes in the composition of their faculty and their instructional capacity.

Factors Contributing to the Increase in Part-Time Faculty Positions

Schools were not asked to report on why their part-time faculty cadre increased. However, we know that schools report difficulty recruiting viable candidates to full-time positions (see Table 18). As a result, they may hire part-time candidates who may not meet all the qualifications for full-time, tenure-leading positions, but who are qualified to teach one or more courses. Further, we know from discussions with our Centralized Clinical Placement Collaborative that many clinical facilities that offer clinical placements have reduced their maximum clinical cohort sizes. To accommodate smaller clinical cohorts, schools must divide their enrolled students into more cohorts which means they must hire additional clinical faculty to oversee and provide instruction to students in the clinical setting.

Table 15. Faculty Positions and Vacancies

Position Type	Full-Time		Part-Time		Total	
	#	%	#	%	#	%
Position Total	**138**	**100%**	**168**	**100%**	**306**	**100%**
Filled	128	93%	167	99%	295	96%
Vacant	10	7%	1	1%	11	4%

Table 16. Demographic Characteristics of Nurse Faculty

Demographic Characteristic	Full-Time		Part-Time		Total	
	#	%	#	%	#	%
Gender Total	**128**	**100%**	**167**	**100%**	**295**	**100%**
Female	117	91%	110	66%	227	77%
Male	11	9%	19	11%	30	10%
Other/Nonbinary	0	0%	0	0%	0	0%
Unknown/Missing	0	0%	38	23%	38	13%
Race/Ethnicity Total	**128**	**100%**	**167**	**100%**	**295**	**100%**
Multiracial	13	10%	2	1%	15	5%
White	60	47%	23	14%	83	28%
Black/African American	4	3%	0	0%	4	1%
American Indian/Alaska Native	1	1%	0	0%	1	0%
Chinese	2	2%	0	0%	2	1%
Filipinx	8	6%	8	5%	16	5%
Japanese	5	4%	9	5%	14	5%
Korean	1	1%	2	1%	3	1%
Other Asian	1	1%	1	1%	2	1%
Native Hawaiian	5	4%	4	2%	9	3%
Samoan	0	0%	0	0%	0	0%
Other Pacific Islander	0	0%	0	0%	0	0%
Some Other Race/Ethnicity	4	3%	1	1%	5	2%
Unknown/Missing	24	19%	117	70%	141	48%
Hispanic/Latinx Origin	**128**	**100%**	**167**	**100%**	**295**	**100%**
Hispanic/Latinx	2	2%	1	1%	3	1%
Non-Hispanic/Latinx	93	73%	49	29%	142	48%
Unknown/Missing	33	26%	117	70%	150	51%
Age Total	**128**	**100%**	**167**	**100%**	**295**	**100%**
30 Years or Younger	0	0%	5	3%	5	2%
31 Years to 40 Years	10	8%	3	2%	13	4%
41 Years to 50 Years	23	18%	26	16%	49	17%
51 Years to 55 Years	14	11%	3	2%	17	6%
56 Years to 60 Years	20	16%	5	3%	25	8%
61 Years to 65 Years	20	16%	5	3%	25	8%
66 Years to 70 Years	12	9%	3	2%	15	5%
71 Years and Older	5	4%	0	0%	5	2%
Unknown/Missing	24	19%	117	70%	141	48%
Highest Degree Earned Total	**128**	**100%**	**167**	**100%**	**295**	**100%**
ADN	0	0%	0	0%	0	0%
BSN	1	1%	18	11%	19	6%
Baccalaureate, Non-Nursing	0	0%	1	1%	1	0%
Master's Degree, Nursing	51	40%	44	26%	95	32%
Master's Degree, Non-Nursing	1	1%	3	2%	4	1%
DNP	20	16%	7	4%	27	9%
Doctoral Practice Degree, Non-Nursing	8	6%	2	1%	10	3%
PhD, Nursing	36	28%	3	2%	39	13%
PhD, Non-Nursing	11	9%	2	1%	13	4%
Unknown/Missing	0	0%	87	52%	87	29%

Challenges Facing Hawaiʻi's Nurse Education Programs

Top Challenges

Each year, the Hawaiʻi Nurse Education Capacity Survey asks schools of nursing to indicate whether a set of commonly-reported challenges affects their programs. We have modified this question over the last two survey cycles to better understand how these challenges affect in-state schools. This year, we asked schools to report whether each challenge affects their existing programs, their ability to develop new programs, or both. We also asked schools to report which challenge has the most significant adverse impact on their programs in general.

Schools reported that insufficient financial resources for new faculty lines or faculty raises had the most significant negative impact on their programs. Lack of funding for faculty compensation was cited by the majority of schools as having a negative impact on existing programs (75%) and their ability to develop new programs (63%). Schools also indicated that insufficient funding for faculty compensation was one of their two top challenges in AY 17-18.

Schools also reported that insufficient resources (e.g., funding, faculty, classroom space, etc.), had a substantial negative impact on their programs. Three-quarters of schools indicated that lack of resources affects their ability to add new programs to their offerings, and 25% of schools reported it as their top challenge.

A lack of clinical training sites continues to be a challenge for some schools. Half of all in-state schools reported that a lack of clinical training sites adversely affects their existing programs, and 25% of schools reported it as their top challenge. As was the case in AY 17-18, most of the schools that were affected by an insufficient number of clinical training sites are in Honolulu County where there is the greatest competition for clinical placements.

Table 17. Factors that Adversely Affect Nurse Education Programs

Challenges Affecting Programs	#1 Challenge for Existing or New Programs	Affects Existing Programs	Affects New Program Development
Lack of funding for new faculty lines or raises	38%	75%	63%
Insufficient funding, faculty, or other resources for program development	25%	50%	75%
Insufficient number of clinical training sites	25%	50%	25%
Difficulty filling full-time faculty positions	13%	75%	50%
Difficulty filling part-time faculty positions	0%	50%	13%
Insufficient number of preceptors for clinical training experiences	0%	50%	13%
Some other challenge	0%	0%	13%

Note. The sum of percentages in "Affects Existing Programs" and "Affects New Program Development" columns exceed 100% due to multiple responses from some schools.

Responses to Challenges

Table 18. Tactics Used by Nurse Education Programs to Address Adverse Impacts

Responses to Challenges	%
Pursuit of alternate/supplemental funding sources	38%
Reduced admissions cohort sizes	38%
Replacement of live clinical experiences with high-fidelity simulation	38%
Decreased frequency of new student admissions	25%
Other response	25%
Increased student tuition and/or fees	13%
Delayed or terminated development of new degree programs or program tracks	0%
Elimination of degree programs or program tracks	0%
Payments directly to preceptors	0%
Payments to clinical sites	0%

Note. The sum of the percentages exceeds 100% due to multiple responses from some schools.

Schools have responded in a variety of ways to reduce the effects of the challenges that impact their programs. In order to respond to limited resources for faculty compensation or to develop new programs, 38% of schools indicated that they have pursued alternate funding sources such as grants or academic-practice partnerships. As an alternative to increasing funding sources, 38% schools reduced the size of their admissions cohorts. By admitting fewer students, they require fewer resources and faculty to keep their programs operational. To respond to the unavailability of clinical placements, 38% of schools indicated that they have increased the proportion of clinical education that they offered by simulation during AY 18-19.

One-quarter of schools reported some other response to challenges than those that were provided on the survey. When asked to specify what other responses they had, one school reported that they pay their faculty overloads to take on more work. One school indicated that although they are resource constrained, they have what they need to continue offering their existing programs, so they have not had any specific response to their challenges.

Appendices

Appendix A – Glossary of Nurse Education Programs Offered in Hawai'i in AY 2018-2019

Term	Definition
Pre-license Programs	**Nurse education programs that admit students with no prior education or experience in nursing.**
LPN Program	A program of instruction that requires at least one year of full-time equivalent coursework generally within a high school, vocational/technical school, or community/junior college setting, the completion of which results in a diploma or certificate of completion and eligibility to apply for licensure as an LPN (see also Hawai'i Administrative Rules §16-89-11 and §16-89-12).
ADN Program, Generic/Traditional	A program of instruction that requires at least two years of full-time equivalent college academic work generally within a junior or community college, the completion of which results in an associate degree with a major in nursing and eligibility to apply for licensure as an RN. (See also Hawai'i Administrative Rules §16-89-10).
Pre-License BSN Program, Generic/Traditional*	A program of instruction to prepare *generalist* registered nurses that admits students with no previous nursing education, the completion of which results in a baccalaureate degree (e.g. BS, BSN, etc.) with a major in nursing and eligibility to apply for licensure as an RN. The program requires at least four years but not more than five years of full-time equivalent college course work within a senior college or university. (See also Hawai'i Administrative Rules §16-89-10).
Pre-License *Graduate* Entry (*GEPN*) Program*	A program of instruction that admits baccalaureate degrees in other disciplines and no previous nursing education. The program prepares graduates for entry into the profession, eligibility to apply for licensure as an RN, and upon completion, *awards a graduate degree in nursing (e.g., MSN, DNP, PhD).* (See also Hawai'i Administrative Rules §16-89-10).
Post-license Programs	**Nurse education programs that require a prospective student to hold an active nursing license to be eligible for admission.**
*LPN to BSN Program**	*A program for students licensed as LPNs the completion of which results in a baccalaureate degree (e.g., BS, BSN, etc.) with a major in nursing and eligibility to apply for licensure as an RN.*
Post-License BSN (RN-to-BSN) Program	A *post-license BSN* program for students who are already licensed as RNs whose highest nursing education is a diploma or associate's degree.
MSN Program *	A post-license master's program with emphasis on advanced clinical practice, including Nurse Practitioner, Nurse Anesthetist, Nurse Midwifery, and Clinical Nurse Specialist tracks. *Includes RN-to-MSN and post-baccalaureate admissions pathways.*
DNP Program*	A program of instruction that prepares graduates for the highest level of nursing practice beyond the initial preparation in the discipline. The DNP is the terminal practice degree. *Includes post-baccalaureate and post-master's admissions pathways.*
PhD Program*	A post-licensure doctoral program that culminates in the PhD in Nursing. *Includes post-baccalaureate and post-master's admissions pathways.*

Note. *Italicized program titles, definitions, or parts of definitions are additions or modifications to those published in the source document published by the National Forum of State Nursing Workforce Centers (2009, pp. 7–9). There are other types of nurse education programs available throughout the country including ADN-Bridge and Accelerated BSN programs. No institution in Hawai'i reported offering either of these types of programs during AY 18-19 and are thus not included in this table. For descriptions of these programs, see either the Hawai'i Nurse Education Capacity Report for AY 2016-2017 or the Forum's Minimum Dataset Survey for Education.

Appendix B – Method for 2018-2019 Nurse Education Capacity Survey

Instrumentation

The data collection instrument for the Education Capacity Survey is based on the National Nursing Workforce Minimum Dataset for Education as published by the National Forum of State Nursing Workforce Centers (2009). The Forum recommends that states use the appropriate MDS for education, supply, and employment demand so that national dialogue about nursing workforce development can be informed by data that is collected at the state level.

In addition to the data points recommended by the Forum, the Center added several questions regarding specialty or certificate education offered in baccalaureate and graduate nurse education programs, challenges to program growth or sustainability, and the responses schools have had to those challenges.

The survey instrument was converted to a form-fillable .pdf with calculation and data validation fields intended to support the submission of high-quality, error-free data.

The full instrument is available upon request to Dr. Carrie Oliveira, Workforce Researcher at the Hawai'i State Center for Nursing.

Institutional Review Board Review

Because the survey collected aggregated, secondary data, it does not meet the definition of "human subjects research" and did not require review or oversight by the IRB at the University of Hawai'i at Mānoa where the Center is housed.

Procedure

The study period commenced on February 13, 2020 when the Center's Researcher sent emails to the chief administrator of each school of nursing requesting their participation in the study. The email included a link to a website that provided a copy of the form-fillable survey and answers to frequently asked questions. The survey form was also attached to the email for the schools' convenience.

School administrators were asked to complete the survey by March 15 and email the survey back to the Center's Researcher for analysis and reporting. As a result of the onset of the COVID-19 pandemic, many schools were unable to meet the original submission deadline, so the fielding period was extended to May 31. As of May 31, we achieved a 100% response rate for the survey.

Following the submission of all surveys, the Center's researcher reviewed each survey for data quality issues and followed up with the individual designated on each survey for clarification.

Appendix C – Program Admissions by Semester, AY 2018-2019

	LPN			ADN			BSN			LPN to BSN			RN to BSN			BSN to MSN			RN to MSN			MSN to DNP			BSN to DNP			PhD			BSN to PhD		
# of Programs	2			4			4			1			4			2			2			3			2			1			1		
Admissions Semesters*	F	S	I	F	S	I	F	S	I	F	S	I	F	S	I	F	S	I	F	S	I	F	S	I	F	S	I	F	S	I	F	S	I
Associate-Granting Institutions																																	
Hawai'i Community College	●			●																													
Kapi'olani Community College	●			●	●																												
		●																															
Kaua'i Community College	●			●																													
University of Hawai'i Maui College		●		●																													
Baccalaureate-Granting Institutions																																	
Chaminade University							●																										
Hawai'i Pacific University							●	●		●			●			●	●		●			●											
University of Hawai'i at Hilo							●						●									●			●								
University of Hawai'i at Mānoa							●						●			●						●			●			●					

Notes. *Letters in this row refer to the session in a traditional academic year wherein F = Fall Semester, S = Spring Semester, I = Summer Intersession. A gray cell indicates that a school did not offer a given program during AY 18-19. A white cell indicates that a school operated the program during the AY but did not admit new students during the academic term. A dot indicates that a school admitted new students into the program for the indicated semester.

Appendix D – Post-License Program Data Including Online-Only Programs

Table 19. Graduate Nurse Education Programs Offered by Institution (with Online-Only Programs)

	HPU	UHH	UHM	CU	UoPX
Master's Degree Programs					
Specialty RN					
Advanced Population Health Nursing			✓		
APRN					
Adult-Gerontology CNS			✓		
Adult-Gerontology Acute Care NP	✓				
Family NP	✓			✓	
Nurse Administration					✓
Health Administration					✓
Nurse Education				✓	✓
Doctor of Nursing Practice Programs					
General DNP					
DNP	✓				
APRN					
Adult-Gerontology Primary Care NP			✓		
Family NP		✓	✓		
Non-Clinical					
Organizational Leadership			✓		

Note. School abbreviations are as follows: HPU = Hawaiʻi Pacific University; UHH = University of Hawaiʻi at Hilo; UHM = University of Hawaiʻi at Mānoa; CU = Chamberlain University; UoPX = University of Phoenix. Data from Chamberlain University and the University of Phoenix include only those programs from which students graduated during AY 2018-2019 and not the schools' total inventory of graduate nurse education tracks. The University of Phoenix also offers a PhD in Nursing.

Table 20. Enrollments & Graduations from Post-License Nursing Programs (with Online-Only Programs)

	RN-to-BSN	MSN	DNP	PhD
New Students Enrolled	83	46	28	4
Graduates	67	46	21	9

Table 21. Demographic Characteristics of Post-License Nursing Students (with Online-Only Programs)

Demographic Characteristic	RN-to-BSN		MSN		DNP		PhD	
	#	%	#	%	#	%	#	%
Gender Total	**126**	**100%**	**88**	**100%**	**64**	**100%**	**21**	**100%**
Female	102	81%	64	73%	51	80%	17	81%
Male	20	16%	16	18%	6	9%	4	19%
Other/Nonbinary	0	0%	0	0%	0	0%	0	0%
Unknown/Missing	4	3%	8	9%	7	11%	0	0%
Race/Ethnicity Total	**126**	**100%**	**88**	**100%**	**64**	**100%**	**21**	**100%**
Multiracial	18	14%	23	26%	13	20%	2	10%
White	25	20%	21	24%	19	30%	10	48%
Black/African American	0	0%	1	1%	1	2%	1	5%
American Indian/Alaska Native	5	4%	0	0%	1	2%	1	5%
Chinese	2	2%	0	0%	1	2%	1	5%
Filipinx	32	25%	7	8%	8	13%	0	0%
Japanese	3	2%	4	5%	8	13%	1	5%
Korean	2	2%	1	1%	3	5%	0	0%
Other Asian	12	10%	8	9%	1	2%	2	10%
Native Hawaiian	6	5%	4	5%	6	9%	3	14%
Samoan	0	0%	0	0%	0	0%	0	0%
Other Pacific Islander	2	2%	0	0%	0	0%	0	0%
Some Other Race/Ethnicity	4	3%	2	2%	2	3%	0	0%
Unknown/Missing	15	12%	17	19%	1	2%	0	0%
Hispanic/Latinx Origin	**126**	**100%**	**88**	**100%**	**64**	**100%**	**21**	**100%**
Hispanic/Latinx	6	5%	3	3%	2	3%	0	0%
Non-Hispanic/Latinx	119	94%	83	94%	27	42%	21	100%
Unknown/Missing	1	1%	2	2%	35	55%	0	0%
Age Total	**126**	**100%**	**88**	**100%**	**64**	**100%**	**21**	**100%**
20 Years or Younger	0	0%	0	0%	0	0%	0	0%
21 Years to 25 Years	25	20%	1	1%	0	0%	0	0%
26 Years to 30 Years	27	21%	13	15%	8	13%	2	10%
31 Years to 40 Years	44	35%	21	24%	24	38%	5	24%
41 Years to 50 Years	17	13%	13	15%	13	20%	5	24%
51 Years to 60 Years	10	8%	6	7%	8	13%	3	14%
61 Years and Older	2	2%	0	0%	4	6%	6	29%
Unknown/Missing	1	1%	34	39%	7	11%	0	0%

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