

Nursing Education in Utah:

A Summary of Utah's Nurse Training Program Capacity 2007- 2014



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The Utah Medical Education Council

State of Utah

www.utahmec.org

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Prepared by: Clark Ruttinger, MPA

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THE UTAH MEDICAL EDUCATION COUNCIL

The Utah Medical Education Council (UMEC) was created in 1997 out of a need to secure and stabilize the state's supply of healthcare clinicians. This legislation authorized the UMEC to conduct ongoing healthcare workforce analyses and to assess Utah's training capacity and graduate medical education (GME) financing policies. The UMEC is presided over by an eight-member board appointed by the Governor to bridge the gap between public/private healthcare workforce and education interests. In 2013, the Utah legislature expanded UMEC health care workforce research responsibilities to include nursing. In association with its enlarged legislative mandate, the UMEC has accepted the designation as the Nursing Workforce Information Center and has become an active member of the Utah Action Coalition for Health (UACH).

Core Responsibilities – Healthcare Workforce

- Assess supply and demand.
- Advise and develop policy.
- Seek and disburse Graduate Medical Education (GME) funds.
- Facilitate training in rural locations.

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ACKNOWLEDGEMENTS

The Utah Medical Education Council (UMEC) as the State's Nursing Workforce Information Center wishes to thank the Utah Organization of Nurse Leaders (UONL) Academic Leadership Committee for its support and cooperation. This committee is composed of representatives from each of the nurse training programs in Utah. They have gathered data on Utah's nurse training programs since 2007. The UMEC is taking over the work that the UONL has done and will continue to collaborate with them in order to accomplish updates to the data contained in this report. Gathering of this data and its tracking and analysis would be impossible without their cooperation.

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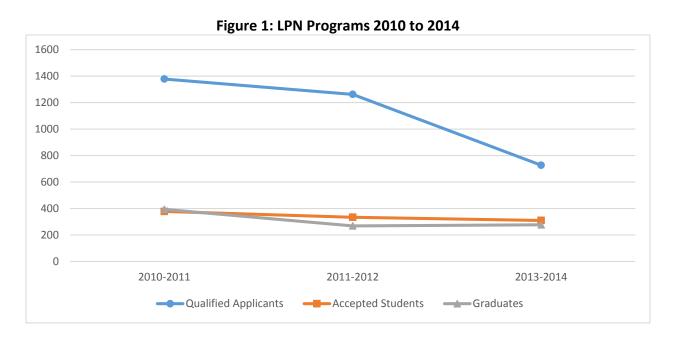
Utah Nursing Education 2007 to 2014

Introduction

The Utah Organization of Nurse Leaders (UONL) has gathered data on the state's nursing education programs annually since 2007. With its appointment as Utah's Nursing Workforce Information Center in 2014, the Utah Medical Education Council took over responsibility for collecting data on Utah's nurse training programs. This report is an attempt at summarizing the data that has been gathered up to this point. Future surveys of Utah's nursing education institutions will become more standardized and provide more easily comparable data. Participation rates in this data collection effort from the state's nurse training programs has varied over the years. Some questions have changed slightly from year to year and new questions have been added. Data was not gathered at all in the 2012-2013 school year.

Students

Licensed Practical Nurse Programs



Data on Utah's Licensed Practical Nurse (LPN) training programs was incomplete before 2010. The number of LPNs being trained in Utah has been slowly declining. The number of qualified applicants to the state's LPN programs has seen a drastic decline from 1,378 in 2010 down to 727 in 2014. The number of students accepted each year, and thus the total number of LPN students enrolled and graduating has stayed relatively flat with just a very slight decline. There are still more than double the number of qualified applicants to LPN programs for the number of seats available to train LPNs each year. This means that even if LPN training programs were to increase capacity, there would still be

plenty of qualified applicants to fill those seats. According to the UMEC nursing demand study published concurrently with this report, there are jobs for these LPNs.

LPNs are being trained in three programs across the state. As per the 2013-2014 survey of nursing education programs, the largest percentage of LPNs are trained through the Utah Colleges of Applied Technology which has 8 different campuses around the state.

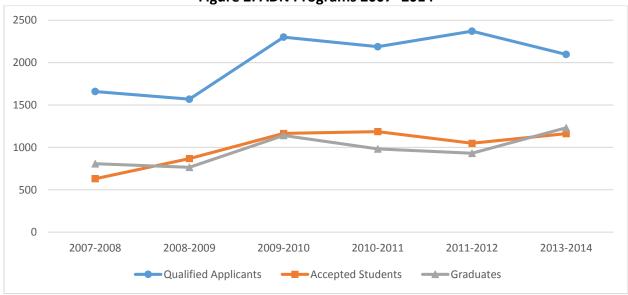
Table 1: LPN Programs 2014

Institution	Percent of LPN Students
Utah Colleges of Applied Technology	87%
Snow College	8%
Utah State University	5%

The number of LPNs being licensed in Utah has been on the decline over the last decade as well. According to license data from the Utah Division of Occupational and Professional Licensing, in 2004 there were 4,205 LPNs licensed in Utah. In 2015 the workforce has declined to 2,741. This is a decline of approximately 146 LPNs per year or a reduction of about 3% per year since 2004. See Figure 22: Nursing License Trends 2004 to 2015 at the end of the report for Utah licensing trends.

Associates Degree in Nursing Programs

Figure 2: ADN Programs 2007- 2014



An associate's degree in nursing (ADN) is the quickest path to qualifying to take the NCLEX and license as an RN in the state of Utah. Total annual enrollment of students in ADN programs across the state is higher than it ever has been. As of the 2013-2014 survey of nursing education programs, there are ten schools providing ADN training in the state. Six are public institutions. ADN programs are broken down between either ADN general programs or ADN Bridge programs (bridge meaning that it is a program

designed for LPNs to become RNs). Weber State University trains the largest percentage of ADN bridge students and Salt Lake Community College trains the largest percentage of general ADN students.

Table 2: ADN Bridge Programs 2014

Institution	Percent of Bridge Program Students	Percent of All ADN Program Students
Weber State University	81%	15%
Utah State University	11%	2%
Snow College	8%	2%

Table 3: ADN General Programs 2014

	Percent of General	Dozent of All ADN
	ADN Program	Percent of All ADN
Institution	Students	Program Students
Salt Lake Community College	28% ¹	23%
Fortis College	16%	13%
Ameritech College	16%	13%
Weber State University	12%	9%
Utah Valley University	10%	8%
Provo College	8%	7%
Dixie State University	6%	5%
Eagle Gate College	5%	4%

The number of qualified applicants to ADN programs far exceeds the number of students accepted each year. The ratio of qualified applicants to accepted students has gone from 2.87 students applying for every student accepted per year in the 2007-2008 school year to 1.92 students applying for every student accepted. The number of qualified students applying to ADN programs each year looks to be in a slight decline in recent years as the number of students accepted in to ADN programs is on the increase.

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¹ Salt Lake Community College did not report numbers for the 2013-2014 survey year. This number was imputed based on numbers from the previous reporting years.

Bachelors of Science in Nursing Programs

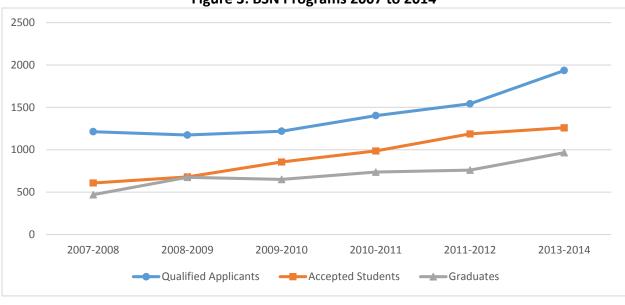


Figure 3: BSN Programs 2007 to 2014

The number of students annually accepted into Bachelors of Science in Nursing (BSN) programs throughout the state has been growing steadily (from 608 in 2007 to 1,260 in 2014). Even with increasing numbers of students being accepted, programs turn away an average of 35% of qualified applicants each year, showing that a bachelor's level education in nursing is still in high demand.

There are 11 different institutions providing RN training on a BSN level in the state of Utah. Six are public institutions. BSN programs are broken down within three categories:

- Pre-License (a program for students without a nursing license and with no previous bachelor's degree).
- Pre-license, Second Bachelor's Degree (a program for students who already have a bachelor's degree, but do not have a nursing license).
- Post-License (a bachelors program for students with a nursing license).

As of the 2013-2014 survey of nursing education programs there are six pre-license programs, one second degree program and seven post-license programs offered in Utah. Brigham Young University educates the largest percent of pre-license students (44%), in addition to educating the largest percent of BSN seeking nursing students in general (20% of all BSN students). Western Governors University educates the largest percent of post-license students (35%) and comes in second in educating the largest percent of BSN seeking nursing students overall (19%).

Table 4: Pre-License BSN Programs 2014

	Percent of Pre-License	Percent of BSN
Institution	Program Students	Program Students
Brigham Young University	44%	20%
Roseman University	5%	2%
Southern Utah University	12%	6%
University of Utah	16%	7%
Western Governors University	5%	2%
Westminster College	18%	8%

Table 5: Post-License BSN Programs 2014

	Percent of Post-License	Percent of BSN
Institution	Program Students	Program Students
Dixie State University	9%	5%
Provo College	1%	1%
University of Utah	14%	8%
Utah Valley University	7%	4%
Weber State University	34%	19%
Western Governors University	35%	19%

The initiative on the Future of Nursing, created by The Robert Wood Johnson Foundation in collaboration with the Institute of Medicine, has set a target of 80% of all RNs in the country being prepared with a bachelor's degree by the year 2020. In addition, nurses prepared at lower levels of education are encouraged to enter baccalaureate programs within five years of graduation. ² This means that RN training programs in Utah should be training more BSNs than ADNs.

From 2007 to 2013, the average annual share of total ADN and BSN nursing students graduating with a bachelor's degree has been 45%. However, the real measure of meeting the 80% target is how many nurses licensed in the state are baccalaureate prepared. This measure can be tracked through a supply survey of all licensed RNs in the state to determine their educational background. However, in order to place the state's nursing workforce on course to meet this goal it is necessary for training programs in the state to train more BSNs than ADNs or risk employers seeking BSN prepared RNs from sources outside the state as a BSN becomes more the accepted standard of preparedness for the RN workforce.

² Institute of Medicine. The future of nursing: Leading change, advancing health. October 5,

^{2010.}www.iom.edu/Reports/2010/The-future-of-nursing-leading-change-advancing-health.aspx. Accessed July 22, 2015.

Master's Programs

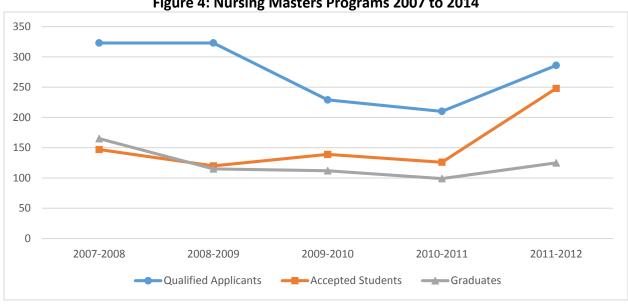


Figure 4: Nursing Masters Programs 2007 to 2014

Nursing masters programs are divided into three categories:

- Pre-license- A master's degree granting program of instruction that admits students with baccalaureate degrees in other disciplines and no previous nursing education.
- Clinical- A post-licensure master's program with emphasis on advanced clinical practice, including Nurse Practitioner, Nurse Anesthetist, Nurse Midwifery, and Clinical Nurse Specialist tracks.
- Non-Clinical- A post-licensure master's program with non-clinical emphasis, such as Nurse Educator and Management/Leadership tracks.

There are six Institutions providing master's level nurse training in Utah. Half are public institutions. Westminster College is the only institution offering a pre-license program in the state. Brigham Young University (BYU) and Westminster College both offer clinical track programs. BYU has a Family Nurse Practitioner program and Westminster has a Family Nurse Practitioner and a Nurse Anesthetist program. Rocky Mountain University of Health Sciences has recently started a Family Nurse Practitioner program as well. Numbers for their new program will be included in future updates to this report. Western Governors University trains the largest percentage of nurses in non-clinical masters programs. The University of Utah, Weber State and Utah Valley Universities also have non-clinical training programs. With the Initiative on the Future of Nursing recommending that the number of nurses with a doctorate double by the year 2020³, applications to masters programs have dropped a great deal from 323 in 2007 to 210 in 2010. The growth in masters programs since 2010 has occurred primarily in non-clinical masters programs.

³ IBID

Table 6: Pre-License Master's Programs 2014

Institution	Percent of Pre-License Master's Program Students	Percent of All Master's Program Students
Westminster College	100%	6%

Table 7: Clinical Master's Programs 2014

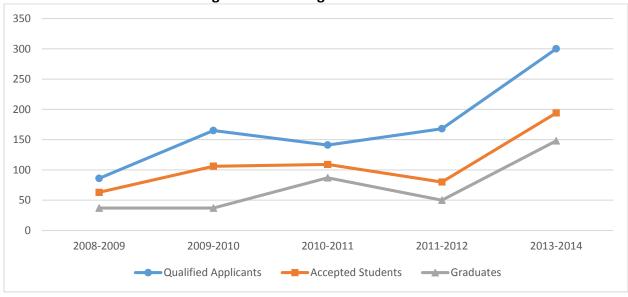
Institution	MSN Clinical	All Masters Programs
Westminster College	49%	6%
Brigham Young University	51%	7%

Table 8: Non-Clinical Master's Programs 2014

Institution	MSN Non-Clinical	All Masters Programs
Utah Valley University	1%	1%
Weber State University	10%	9%
University of Utah	18%	15%
Western Governors University	63%	55%

Doctorate in Nursing Programs

Figure 5: DNP Programs 2008-2014



With the Future of Nursing recommendation to double the number of doctorate prepared nurses by 2020 the University of Utah has transitioned their clinical masters programs into doctorate programs. There has been an increase in qualified applicants to Doctorate in Nursing (DNP) and nursing PhD programs, especially since 2011. The University of Utah trains approximately 83% of all DNP students in Utah and Rocky Mountain University of Health Professions trains the other 17%

PhD Programs

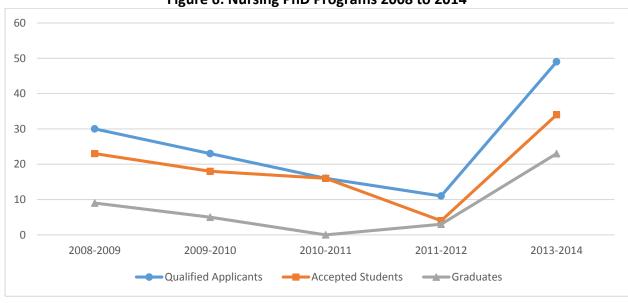


Figure 6: Nursing PhD Programs 2008 to 2014

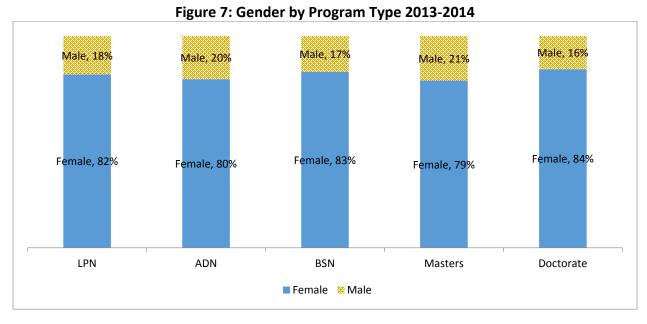
The University of Utah is the only program that is reporting students in a nursing PhD program as of the 2013- 2014 school year. In the past, Rocky Mountain University of Health Professions has also reported training PhD students in nursing.

Students applying to nursing PhD programs had been on the decline from 2007 through 2011. They appear to be back on the rise since 2012. As more graduate level nursing moves to doctorate levels of preparedness and as nursing faculty age and retire, the need for PhD prepared nurses to address faculty demands will increase.

2013-2014 Additional Student Data

The UMEC has aligned the collection of Utah's nursing education data with the national minimum data set (MDS) recommended by the National State Boards of Nursing and the National Forum for State Nursing Workforce Centers.⁴ The MDS recommends gathering more data than has previously been gathered from training institutions in the past. The following are some of the results of new questions asked in the 2013-2014 school year that were not asked in previous years but will be asked in future surveys.

⁴National Nursing Workforce Minimum Datasets: Education http://www.nursingworkforcecenters.org/resources/files/Nursing Education Dataset.pdf. Accessed August 10, 2015



Nursing students are predominantly female. ADN and Master's programs are slightly more male than other programs.

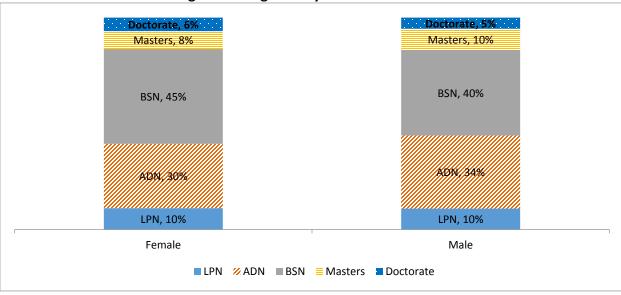


Figure 8: Programs by Gender 2013-2014

When comparing how gender is distributed across program types, students seem to be enrolled evenly across programs regardless of gender. A slightly larger proportion of males were enrolled in ADN and Master's programs. A slightly larger portion of females were enrolled in BSN and Doctorate programs.

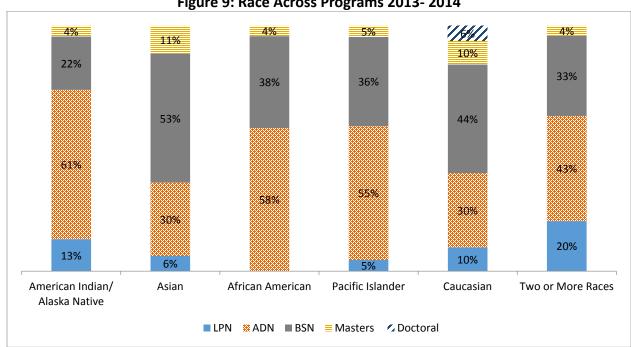


Figure 9: Race Across Programs 2013- 2014

In 2013-2014 the majority of American Indians, African Americans, Pacific Islanders and those with two or more races were each enrolled in ADN programs. The majority of Asians and Caucasians were enrolled in BSN programs. A larger proportion of American Indians were enrolled in LPN programs than any other group except for those with two or more races.

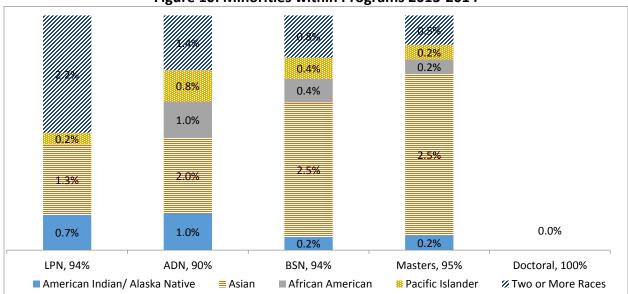


Figure 10: Minorities within Programs 2013-2014

Looking at race distribution within programs, all nurse training programs in Utah are overwhelmingly white. The percentage next to the column label in Figure 10: Minorities within Programs 2013-2014 is

the proportion of that program type that is Caucasian. There were no minorities reported to be enrolled in doctoral programs in 2013-2014. ADN programs were the least Caucasian at 90%.

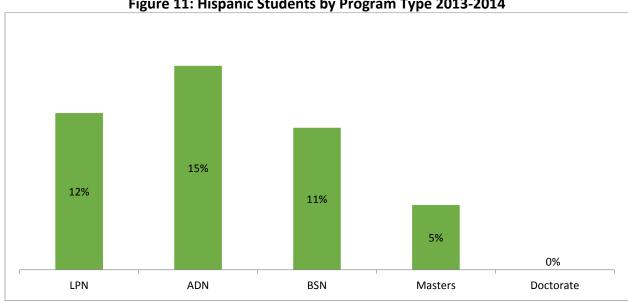


Figure 11: Hispanic Students by Program Type 2013-2014

ADN programs also held the largest proportion of Hispanic students in 2013-2014.

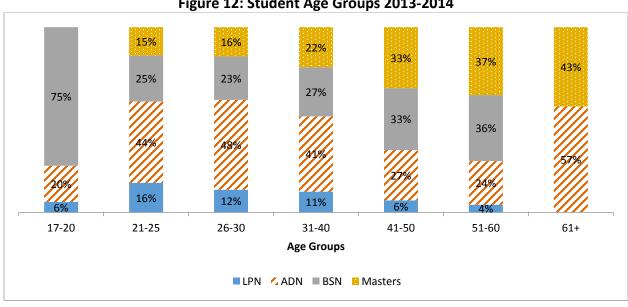
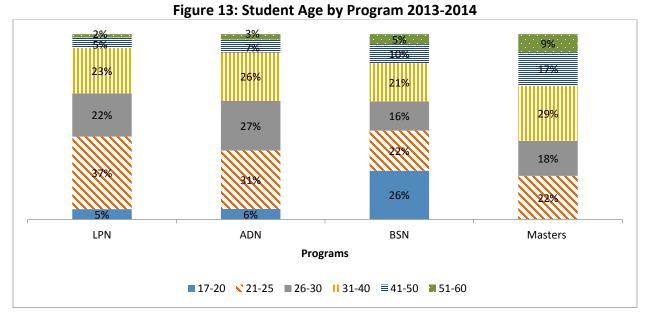


Figure 12: Student Age Groups 2013-2014

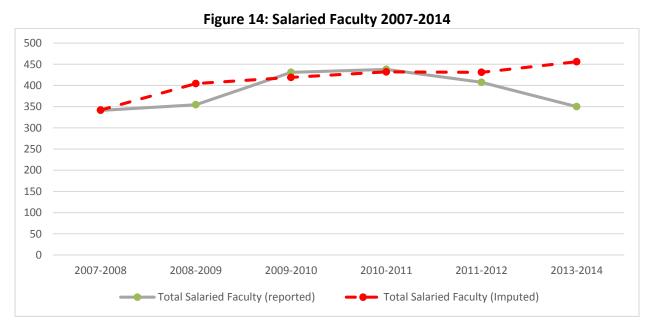
Nursing students are distributed across all ages. Programs did not report ages of students in doctoral programs, likely to maintain student privacy. As students age increases, larger proportions of students are found in higher level programs (BSN and Master's).



The largest proportion of LPN and ADN students are between 21-25 (37% and 31% respectively). The largest proportion of BSN students are between 17- 20 years old (26%). The largest proportion of Master's students are between the ages of 31- 40 (29%).

Faculty

Salaried Faculty



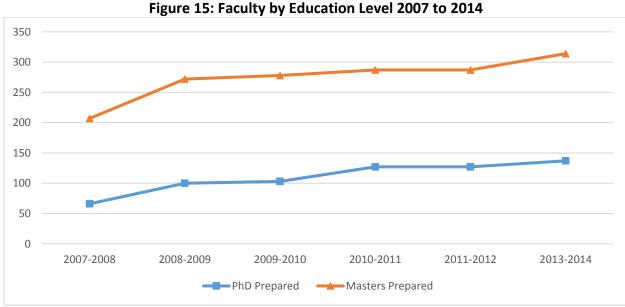
Total salaried faculty has slowly increased over time as the number and types of programs have increased. In years past, different institutions have reported total salaried faculty numbers in one year

and then not reported numbers in other years. In situations where institutions missed reporting one year and reported the data in previous and subsequent years, the numbers for the missing years have been imputed to reflect a more accurate growth trend. The grey line in Figure 14: Salaried Faculty 2007-2014 represents actually reported numbers.

Programs should be aware that missed participation in a given year can have drastic effect on the results of tracking faculty over time for the state. Surveys of Utah's nursing education programs have never asked that faculty data be broken down by program type. There is no way to tell what program types have created this change. Future surveys should request that faculty numbers be broken down by program type, especially for institutions that provide several different training programs.

Faculty Education

the end of the 2014 school year.



Faculty prepared at both Master's and PhD levels have increased at a similar rate, slowly from 66 PhD prepared and 207 Master's prepared faculty in 2007 to 137 PhD prepared and 314 Master's prepared by

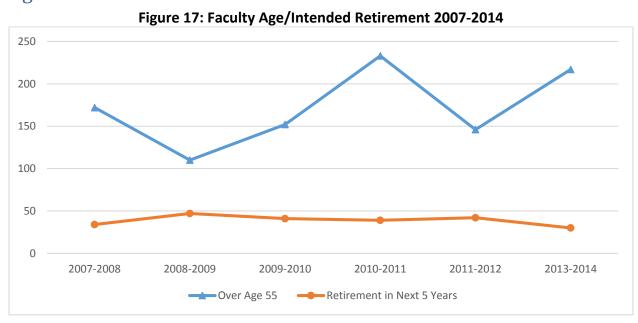
Needed Faculty

35 30 25 20 15 10 2007-2008 2008-2009 2013-2014 2009-2010 2010-2011 2011-2012 Masters Prepared PhD Prepared

Figure 16: Faculty Needed 2007-2014

Need for both Master's and Doctoral prepared faculty is on the rise. Although, in 2013-2014, the need for Doctoral prepared faculty was reported to decline.

Age and Retirement



Nursing faculty over the age of 55 has changed drastically from year to year. Looking at just the 2013-2014 year, an estimated 47% of the state's nursing faculty could be over the age of 55. Retirements reported in the next five years have remained fairly steady over time with an average of 39 retirements per year. It would be beneficial to have institutions break down faculty by program type to determine better what is happening.

2013-2014 Additional Faculty Data

70+, 1% 60's, 22% .30's, 21% 40's, 22% 50's, 34%

Figure 18: Faculty Age 2013-2014

The largest proportion of faculty were in their 50's in 2013-2014 (34%). A combined 57% of faculty were over the age of 50.

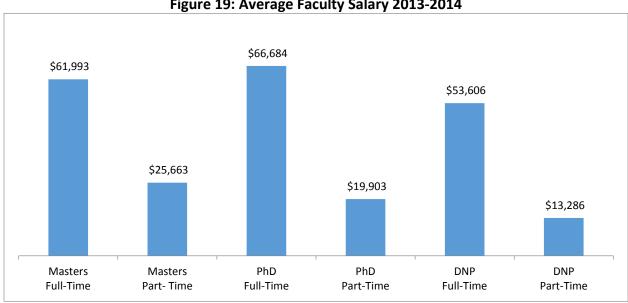


Figure 19: Average Faculty Salary 2013-2014

It would be beneficial to see salary broken down by program types. Full-time faculty salaries vary between a \$66k average for PhD prepared faculty on the high end and \$53k for DNP prepared faculty on the low end.

Pacific Islander, 1%

American Indian/
Alaska Native, 1%

African American, 1%

96% White/Caucasian

Asian, 2%

Figure 20: Faculty Race 2013-2014

Nursing faculty makeup closely resembles that of student makeup by race. Neither is representative of the state's population at large.

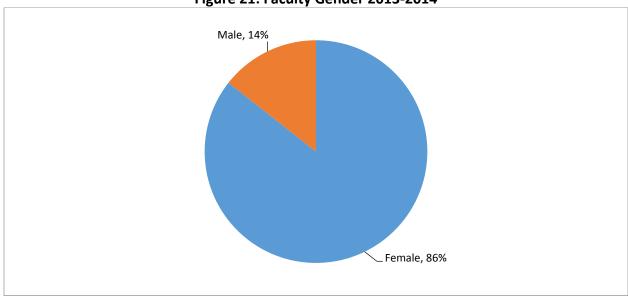


Figure 21: Faculty Gender 2013-2014

Nursing faculty gender proportions are fairly similar to that of students.

Conclusion

Nursing in Utah is experiencing an increase in skill at all levels. This can be seen in license trends for nurses over the last decade. LPNs have experienced drastic declines while RNs and APRNs have seen large growth. The key questions when it comes to licensing are, what is the mix of RNs holding an associate's or a bachelor's degree? Also, what is the mix of APRNs holding a doctoral or a master's

degree? Close attention to these measures should be paid in order to keep pace with national targets for the nursing profession.

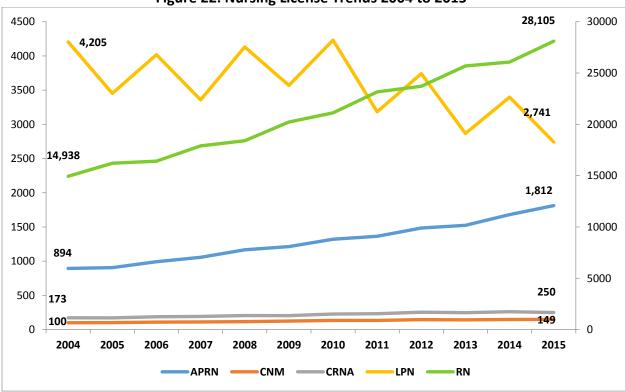


Figure 22: Nursing License Trends 2004 to 2015⁵

A key factor in focusing on the national Initiative on the Future of Nursing goals of increasing the proportion of nurses with a baccalaureate degree to 80% and doubling the number of nurses with a doctorate both by 2020 is the number of nurses being trained and in what types of programs they are being trained. Data presented in this report show that the number of ADN and BSN students is approximately the same overall. However, ADN program applications appear to be slightly on the decline where BSN program applications appear to be slightly on the rise. Applications and accepted students to both master's and doctoral programs appear to be on the rise as well. The best way to determine if Utah is meeting these Future of Nursing goals is to survey licensed nurses, however educational data can give us a clue as to the direction that programs are taking Utah's nursing workforce.

More detailed data will continue to be produced as questions from the full recommended education minimum data set are asked and all programs participate in submitting data each year. Discussions should be had about how to request further data about faculty so that more program specific changes can be tracked and implemented over time.

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⁵ Utah Department of Occupational and Professional Licensing data.