



**IDFPR Board of Nursing
Report on
Pre-Licensure Nursing
Education Programs, Students
and Faculty
2011-2015
(December, 2016)**



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ACKNOWLEDGEMENTS

The Illinois Department of Professional Regulation (IDFPR) Board of Nursing and the Illinois Center for Nursing (ICN) would like to express our gratitude to the individuals and organizations that have made this report possible. We would especially like to thank:

The Governor of Illinois, Bruce Rauner; the Secretary of the Illinois Department of Financial and Professional Regulation (IDFPR), Bryan A. Schneider; and the Acting Director of Professional Regulations, Jessica Baer, for their support and interest in the study of nursing workforce.

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We owe a special thanks to Stephanie Gedzyk-Nieman, MSN, RNC-MNN, Lewis University Doctorate of Nursing Practice student. Mrs. Gedzyk-Nieman worked with dedication to verify, compile, and create a document that reflects the status of nursing over the past five years. Our thanks also go to Reid M. Paxson Jr., Administrative Assistant to the Nurse Coordinator, Michele Bromberg, MSN, RN, IDFPR Nursing Coordinator and Linda B. Roberts, MSN, RN, ICN Manager.

Special thanks to the deans and directors of the Illinois pre-licensure nursing education programs who annually complete the mandatory survey. The feedback provided will make a significant contribution to planning health services in Illinois, specifically those focused on educating the nursing workforce.

EXECUTIVE SUMMARY

This report is an analysis of trends in Illinois pre-licensure nursing education, including both faculty and students, from the years 2011-2015.

The Illinois Department of Financial and Professional Regulation (IDFPR) Board of Nursing (BON) collects information on an annual basis from all Illinois pre-licensure nursing education programs. Disclosure of this annual mandatory report is required to maintain BON pre-licensure nursing education program approval, which is required for a nursing student to be eligible to take the nursing license examination (NCLEX®). Therefore, the response rate for this annual survey is 100%. For this report, nursing programs are included in the data separately by type even if they are housed within the same institution. This means that the data presented in this report is based on the number and type of programs and not the number of schools or institutions. The intent of the survey is to capture data on the demographics of both nursing students and faculty; faculty education levels and employment status; and enrollment and graduation figures for pre-licensure nursing education programs.

Program Information:

Nurses are the largest group of healthcare providers in both acute-care and community settings in Illinois. An adequate, well-prepared and diverse nursing workforce depends upon academically rigorous education programs and adequate resources to prepare the next generation of high quality professional nurses.

- **Types of Programs:** Traditional pre-licensure nursing education programs for Registered Nurses (RNs) in Illinois are the hospital diploma program, an associate degree obtained at a community college or a private college, or a bachelor's degree obtained at a university or college. For Licensed Practical Nurses (LPNs), the options are a proprietary school program or a community college program. Illinois also has non-traditional pre-licensure nursing education programs as well. Ladder programs allow students to take the national LPN licensure exam (NCLEX-PN®) after a certain point in the curriculum and/or continue the program and complete the RN education requirements and take the national RN licensure exam (NCLEX-RN®). Bachelors of Science in Nursing (BSN) Accelerated programs admit students that already have obtained a bachelor's degree in another discipline to obtain a BSN degree in an accelerated format and amount of time. Masters of Nursing (MSN) Entry programs allow students that already have a bachelor's degree in another discipline to obtain a MSN degree, instead of a BSN degree, while preparing them to take the NCLEX-RN® exam. Military/Corpsman to LPN programs allows U. S. Navy

or Air Force veterans who completed the Medical Education and Training Campus (METC) Basic Medical Technician Corpsman program, or have at least one year of experience using corpsman skills within the last five years, to transition to a military/corpsman to LPN program in a pre-identified community college.

- **Program Expansion:** There are 146 pre-licensure programs in Illinois-113 for RNs and 33 for LPNs; in 2011, there were 142. This growth aligns with the *Illinois Board of Higher Education (IBHE) Report of the Higher Education Commission on the Future of the Workforce's* goal of 60% of the adult population in Illinois obtaining a high-quality post-secondary credential or degree by 2025. The report also concurs with the Institute of Medicine (IOM) (2011) recommendation to increase the proportion of nurses with a bachelor's degree in nursing (BSN) to 80% by 2020.
- **Graduation Rates:** The number of graduates from all programs combined in Illinois saw a steady increase until 2013, after which the number of graduates began to decline; however, the number of graduates in 2015 was still 9.1% greater than in 2011. Until 2014, associate degree (ADN) programs produced the largest percentage of graduates in Illinois. However, by 2015, bachelor's degree (BSN) programs produced the largest percentage of graduates in Illinois (39%). The largest growth occurred in the BSN Accelerated programs, from 2011 to 2015 the number of these graduates grew from 2% to 6% of all Illinois pre-licensure graduates; this was followed by the MSN Entry programs which grew from 3% to 4% during the same time period.
- **Nursing License (NCLEX®) Pass Rates:** Illinois nursing schools are the critical supplier of the nursing workforce and these educational programs prepare excellent nurses. To enter practice, nursing students must not only successfully graduate with their nursing degree, but they must also pass their respective National Council Licensure Examination (NCLEX®) prior to obtaining a nursing license. From 2011-2015 the first-time pass rate for Illinois students taking the NCLEX-RN® exam has met or exceeded the national total pass rate annually while the first-time pass rate for Illinois students taking the NCLEX-PN® exam to become Licensed Practical Nurses (LPNs) has exceeded the national total pass rate annually.
- **Program Capacity/Qualified Applicants/Admissions:** The capacity of all programs combined in Illinois has increased 12.9% since 2011. From 2011-2015 the BSN Accelerated programs had the greatest increase in capacity, from 252 seats in 9 programs to 584 seats in 12 programs, a 131.7% capacity increase and a 33% program growth, During the period of 2011-2015 there was a 6% decrease in

qualified applicants for all Illinois programs combined, yet even with this decrease in total number of applicants, there were 47.7% more qualified applicants than capacity (13,293 seats available with 19,646 qualified applicants for those available seats). The number of qualified applicants has exceeded capacity for all programs annually since 2011, even with the annual increase in program capacity.

In 2011, all programs in Illinois combined were at 93.3% capacity but by 2015, they were at 84.1% of capacity. Program admission in Illinois has increased 4.9% since 2011, despite a 12.9% increase in capacity. Although pre-licensure nursing education programs strive to admit at 100% capacity, there are reasons why this is, sometimes unattainable. First, applicants often apply to several programs at once to ensure acceptance to at least one program, but cannot enroll in more than one program at a time. If the applicant notifies the programs early enough of their declination of enrollment, programs can then offer that seat to another applicant. Often times, this notification does not arrive until shortly before or the day before classes begin. When this occurs, it is too late to offer the seat to someone else and the seat then remains unfilled. Second, although an applicant may meet a particular program's criteria for admission, they may only meet it at the minimum level or that applicant may have other predictors present that indicate that they will not be successful if admitted. Therefore, that applicant may be denied admission.

Student Information:

In order to plan for both future nursing workforce and healthcare needs in Illinois, it is important to explore the demographics of the nursing student population in addition to program enrollment figures.

- **Enrollment:** Over the period of this report, enrollment in pre-licensure nursing programs has increased almost 19% with approximately 23,000 students enrolled in a pre-licensure nursing program in 2015. The largest growth in enrollment has been in the University setting among bachelor's degree (including accelerated programs) and master's degree programs. Associate degree (ADN) programs' enrollment experienced a downward trend after a large growth period in 2012; however, this is a modest decline (-2.4%) considering the closure of four ADN programs by 2015.
- **Diversity:** The pre-licensure nursing student body in Illinois essentially emulates that of the general population in Illinois, except for having slightly less Hispanic and non-Hispanic/Black than the Illinois population (United States Census Bureau, 2015). Although still predominately non-Hispanic/White, the percentage of pre-licensure nursing students in Illinois belonging to a racial or ethnic minority has

grown 2.6% since 2012. The largest minority group among all pre-licensure programs in Illinois is Non-Hispanic Black, except for the MSN Entry program where the largest group is Asian (11.4% in 2015) and the BSN program where the largest group is Hispanic (12.3% in 2015).

Compared to 2014 national data reported by NLN (2014b), there were more non-Hispanic/Black, Hispanic and Asian/Native Hawaiian/Other Pacific Islander pre-licensure students in Illinois than the national average.

- **Age:** The largest age group among all pre-licensure nursing students continues to be 21-25 years of age and the age distribution remains essentially unchanged. In 2015, 74% of pre-licensure students were age 30 years or younger. When compared to 2014 national rates, Illinois had a slightly higher percentage of Diploma, LPN and ADN program students older than 30 years of age, but a slightly lower percentage of BSN students younger than 30 years of age (NLN, 2014f).
- **Gender:** Male student enrollment in pre-licensure nursing programs in Illinois has remained essentially the same at 12.9%, which is slightly less than the 2014 national average of 15% (NLN, 2014e).

Faculty Information:

A critical resource affecting the ability of schools of nursing to educate the future nurses needed for Illinois is having readily available, highly-educated faculty.

- **Employment Status:** Since 2011, the faculty vacancy rate for all pre-licensure programs in Illinois has almost doubled from 1.9% in 2011 to 3.6% in 2015. In 2015, over 80% of pre-licensure programs nationally were actively attempting to hire more faculty (NLN, 2016b). This means that Illinois' programs are not unique in experiencing this issue. Since 2011, the number of full-time faculty employed in all pre-licensure programs in Illinois increased 6.1% while the number of part-time faculty employed increased by 17.2%. According to the Colorado Center for Nursing Excellence (2012), full-time faculty usually absorbs the majority of the responsibility for curriculum content and development, as well as program leadership. Therefore, a lack of full-time faculty presence in nursing programs could have a negative impact on those programs and their outcomes.
- **Diversity:** Diversity among Illinois nursing faculty has slightly increased, with the percentage of pre-licensure nursing faculty belonging to a racial or ethnic minority increasing 1.3% since 2012. 73% of faculty is non-Hispanic/White, but this is a 5% decrease from 2012. The largest minority group represented among all pre-licensure nursing faculty remains non-Hispanic/Black (12% in 2015). The ethnic

diversity of Illinois' pre-licensure faculty essentially emulates that of national figures. The only difference is among the number of Hispanic full-time pre-licensure faculty, which is 1% in Illinois but 3.7% nationally (NLN, 2016a).

Of all of the programs in Illinois, LPN program faculty are the most diverse and BSN program faculty experienced the largest growth in diversity.

- **Age:** The age distribution among pre-licensure nursing faculty has essentially remained unchanged since 2011 and the largest age group among faculty continues to be 41-50 years old. In 2015, 18.6% of pre-licensure nursing faculty were 61 years or older, this is up from 14.6% in 2011. The percentage of full-time pre-licensure faculty in Illinois aged 61 years or older is also higher than national rates (IL-22%; US-20%) (NLN, 2016a). Faculty aged 61 years or older are eligible for retirement and if this occurs without the ability or a plan to replace them, program capacities and student admissions could be negatively impacted (IOM, 2011).
- **Gender:** The percent of male pre-licensure nursing faculty has increased by 1.3%, to 6.0% in 2015, yet male faculty still remain the minority.
- **Academic Credentials:** The Illinois Department of Financial and Professional Regulation Board of Nursing sets the standard for academic credentials required for pre-licensure nursing education program faculty. In Illinois, the minimum requirement to teach in an LPN program is a baccalaureate degree with a major in nursing (BSN). For all other pre-licensure nursing education programs, the minimum requirement is a master's degree with a major in nursing (MSN). The MSN remains the most common degree found among pre-licensure nursing faculty, 72% in 2015. The percentage of pre-licensure faculty in Illinois with a BSN degree as their highest-earned degree decreased from 2011-2015 by 50%, from 6% to 3%. During this same time period, the number of pre-licensure faculty in Illinois holding a doctoral degree as their highest-earned degree increased from 19.2% to 22.5%. In 2011, 57% of pre-licensure faculty in Illinois who held a doctoral degree had a PhD in Nursing; by 2015, this declined to 53%, while the number of pre-licensure faculty with a DNP degree increased to 27% from 20% in 2011. The percentage of full-time pre-licensure faculty that held either a baccalaureate or master's degree in Illinois in 2015 was less than national figures, but higher than national figures for the doctoral degree (IL-35.4%; US-33%) (NLN, 2016c).

About the Annual Survey and Program Evaluation Report

The Illinois Department of Financial and Professional Regulation (IDFPR) Board of Nursing collects information on an annual basis from all Illinois pre-licensure nursing education programs. Disclosure of this annual mandatory report is required to maintain Board of Nursing pre-licensure nursing education program approval, which is required for a nursing student to be eligible to take the nursing license examination. Therefore, the response rate for this annual survey is 100%.

[The Rules for the Administration of the Illinois Nurse Practice Act, Sections 1300.230 \(LPN\) Approval of Programs, b\) Continued Program Approval and 1300.340 \(RN\) Approval of Programs, b\) Continued Program Approval](#) states: “*Nursing education programs shall submit annual evaluation reports to the Division on forms provided by the Division. These reports shall contain information regarding curriculum, faculty and students and other information deemed appropriate by the Division*”. Completion of this annual Board of Nursing (BON) survey form is necessary to accomplish the statutory purpose as outlined in 225 ILCS 65/5-1, et al. For a current copy of the IDFPR Nurse Practice Act, go to <http://www.idfpr.com/profs/nursing.asp>

The Board of Nursing (BON) survey is conducted with the intent to capture data on the demographics of both nursing students and faculty; faculty education levels and employment status; and enrollment and graduation figures for pre-licensure nursing education programs. The data collected is based on fiscal year, with a fiscal year-end date of June 30. This retrospective survey includes definitions of terms, request for three years of faculty and student data, verification of school name, address, chief administrator and minor curriculum revisions. All surveys are required to be signed by the dean or director of the nursing education program prior to acceptance by the Illinois Board of Nursing. Surveys may be returned to IDFPR by United States mail or by e-mail. A comprehensive record of the questions contained in the annual survey is provided in Appendix A.

Beginning in 2008, after review of other state board of nursing surveys and past Illinois Board of Nursing annual surveys, the survey process and its content was standardized. The standardizations include definitions, time of year data is collected, collection based on fiscal year (similar to other state agencies) and only requesting three years of data. In 2011, IDFPR began the inclusion process of National Forum of State Nursing Workforce Centers Minimum Dataset for Education (<http://nursingworkforcecenters.org/>) items, with all items included by 2012. This standardization occurred under the direction of Michele Bromberg, MSN, RN (IDFPR Nursing Coordinator) with the assistance of Linda B. Roberts, MSN, RN (Illinois Center for Nursing Manager).

This report provides an analysis of trends in Illinois pre-licensure nursing education, in regards to both faculty and students, from the years 2011-2015 (unless otherwise noted). Additional copies of this report may be found on the Illinois Center for Nursing website, <http://nursing.illinois.gov/ResearchData.asp>.

Pre-Licensure Nursing Education Programs

For this report, nursing programs are included in the data separately by type even if they are housed within the same institution. The data presented in this report is based on the number and type of programs and not the number of schools or institutions.

Traditional pre-licensure nursing education programs for Registered Nurses (RNs) in Illinois are the hospital diploma program, an associate degree obtained at a community college or a private college, or a bachelor's degree obtained at a university or college. For Licensed Practical Nurses (LPNs), the options are a proprietary school program or a community college program.

Illinois also has non-traditional pre-licensure nursing education programs as well. *Ladder programs* are RN programs that allow students to take the national LPN licensure exam (NCLEX-PN®) after a certain point in the curriculum and/or continue the program and complete the RN education requirements, therefore, becoming eligible to take the national RN licensure exam (NCLEX-RN®). These students' information is included in their program's Associate Degree Program (ADN) annual report. *Bachelors of Science in Nursing (BSN) Accelerated programs* admit students that have already obtained a bachelor's degree in another discipline to obtain a BSN degree in an accelerated format and amount of time. *Masters of Nursing (MSN) Entry programs* allow students that already have a bachelor's degree in another discipline to obtain a MSN degree, instead of a BSN degree, while preparing them to take the national RN licensure exam (NCLEX-RN®).

Military/Corpsman to LPN programs allows U. S. Navy or Air Force veterans who completed the Medical Education and Training Campus (METC) Basic Medical Technician Corpsman program, or have at least one year of experience using corpsman skills within the last five years, to transition to a military/corpsman to LPN program in a pre-identified community college. These military transition programs were first established in 2014 and survey data collected in 2015. Since there is not any trend data available, these programs are not included in this retrospective report.

PROGRAM EXPANSION

Figure 1 (below) presents the number and types of pre-licensure nursing education programs offered in Illinois from 2011-2015. Since 2011, there has been an overall increase in the total number of Illinois pre-licensure nursing education programs by 4 programs to 146 programs. The largest program growth has been in the Master’s (MSN) Entry programs (+50% since 2011) followed by Bachelor’s (BSN) Accelerated programs (+33.3% since 2011). Both of these types of programs have been available for approximately the last decade. Since 2011, three types of pre-licensure nursing education programs have declined in number in Illinois: they are associate degree (ADN) programs (-8.1%), LPN Ladder programs (-7.1%) and LPN programs (-5.5%).

Figure 1

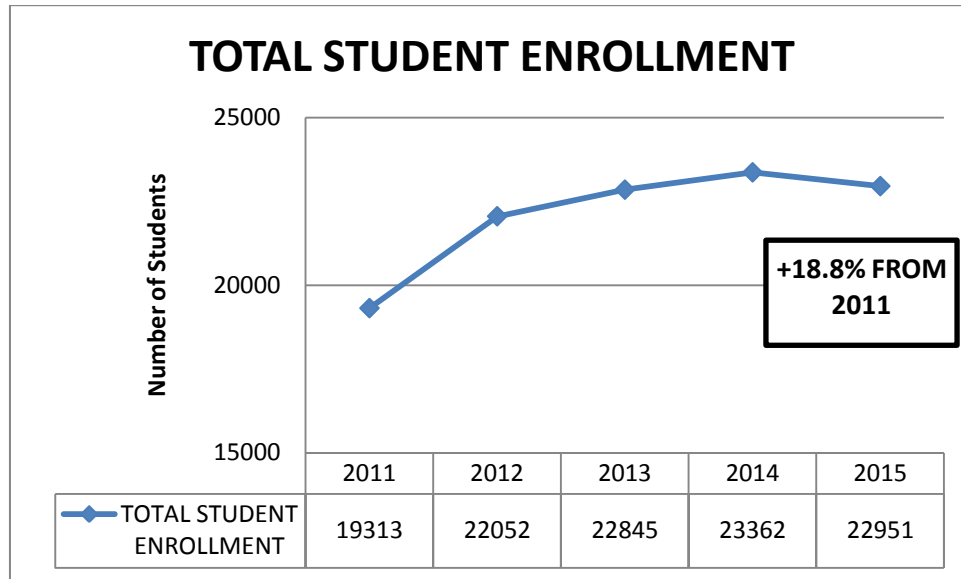
Program Type	2011	2012	2013	2014	2015	PERCENT CHANGE FROM 2011 to 2015
LPN	36	39	40	37	34	-5.5%
LPN LADDER	14	14	14	13	13	-7.1%
MILITARY TO LPN	0	0	0	3	4	N/A
ADN	49	50	50	51	45	-8.1%
DIPLOMA	1	1	1	1	1	0%
BSN	29	29	29	30	31	6.8%
BSN (ACCELERATED)	9	9	10	12	12	33.3%
MSN ENTRY	4	4	4	5	6	50%
TOTAL	142	146	148	152	146	

The amount of pre-licensure nursing education program growth experienced in Illinois from 2012 to 2014 is greater than the national average for both BSN and ADN programs, but less than the national average for Diploma programs. According to the National League for Nursing (NLN) (2014a), nationally there was a 2% increase in BSN programs, a 14% increase Diploma programs and a 1% increase in ADN programs from 2012 to 2014. During this same timeframe, Illinois experienced a 3.4% increase in BSN programs and a 2% increase in ADN programs while the number of Diploma programs remained unchanged. This growth aligns with the *Illinois Board of Higher Education (IBHE) Report of the Higher Education Commission on the Future of the Workforce’s* goal of 60% of the adult population in Illinois obtaining a high-quality post-secondary credential or degree by 2025. The report also concurs with the Institute of Medicine (IOM) (2011) recommendation to increase the proportion of nurses with a BSN to 80% by 2020.

STUDENT ENROLLMENT

Over the period of this report, there has been an increase in the number of pre-licensure nursing students in Illinois. Figure 2 (below) presents the total pre-licensure nursing student enrollment in Illinois from 2011-2015. From 2011-2015, enrollment increased by 18.8%.

Figure 2



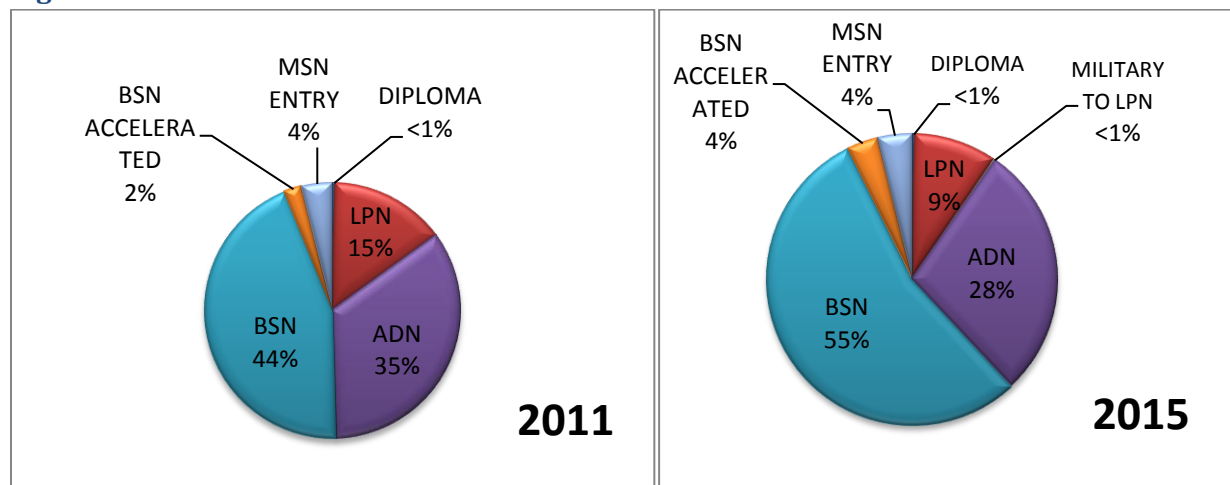
Includes both full-time and part-time students

Figure 3 below compares the 2011 to 2015 enrollment among the various pre-licensure programs in Illinois. The bachelor’s degree (BSN) program had the largest enrollment for both years. BSN Accelerated programs had the largest increase in enrollment since 2011 (436 students enrolled in 2011 to 797 enrolled in 2015) and BSN programs the second largest (8,536 students enrolled in 2011 to 12,542 enrolled in 2015). This is congruent with the addition of three new BSN Accelerated programs and two new BSN programs in the state.

Master’s degree (MSN) Entry enrollment increased 18.1% since 2011 (740 students enrolled in 2011 to 874 enrolled in 2015), but still remains at 4% of total pre-licensure student enrollment in Illinois. Again, this is to be expected with the addition of two new programs in the state. Associate degree (ADN) program enrollment experienced a downward trend after a large growth period in 2012. However, this is a modest decline (-2.4% since 2011) considering the closure of four ADN programs by 2015. LPN Program enrollment experienced a decline of 24.8% since 2011 (2,811 students enrolled in 2011 to 2,112 in 2015), but remains at 9% of the total pre-licensure student enrollment in Illinois. A decline in enrollment is expected with the reduction of two LPN programs by 2015, but

not of this magnitude. Hospital diploma program enrollment, despite a reduction in enrollment from 2012-2014, remains essentially the same as it was in 2011.

Figure 3



Includes both full-time and part-time students; LPN Ladder program students are included in the ADN program percentages.

Comparing enrollment data for Illinois to national data presented by the American Association of Colleges of Nursing (AACN) reveals that enrollment in Illinois' MSN Entry programs is greater than national enrollment figures and only slightly lower than national enrollment figures for Illinois' BSN and BSN Accelerated programs. Illinois in 2015 (when examining only BSN, BSN Accelerated and MSN Entry programs enrollment data) had 88.2% of students enrolled in BSN programs, 5.6% in BSN Accelerated programs and 6.2% in MSN Entry programs, while nationally 89% were enrolled in BSN programs, 8% in BSN Accelerated programs and 3% in MSN Entry programs (Fang, Li, Stauffer, & Trautman, 2016). During this same time period, BSN and BSN Accelerated program enrollment in Illinois increased 48.2% from 2011 to 2015, while nationally this only increased 12.5% (Fang et al., 2016).

GRADUATION RATES

Nurse Graduate is defined as an individual who meets all requirements for the degree and is formally awarded the degree. Figure 4 below presents the number of pre-licensure nursing graduates from all programs in Illinois from 2011 to 2015. The number of graduates from pre-licensure nursing programs in Illinois steadily increased until 2013. Though the number of graduates began to decline after 2013, the total number of graduates in 2015 was still 9.1% greater than in 2011.

Figure 4

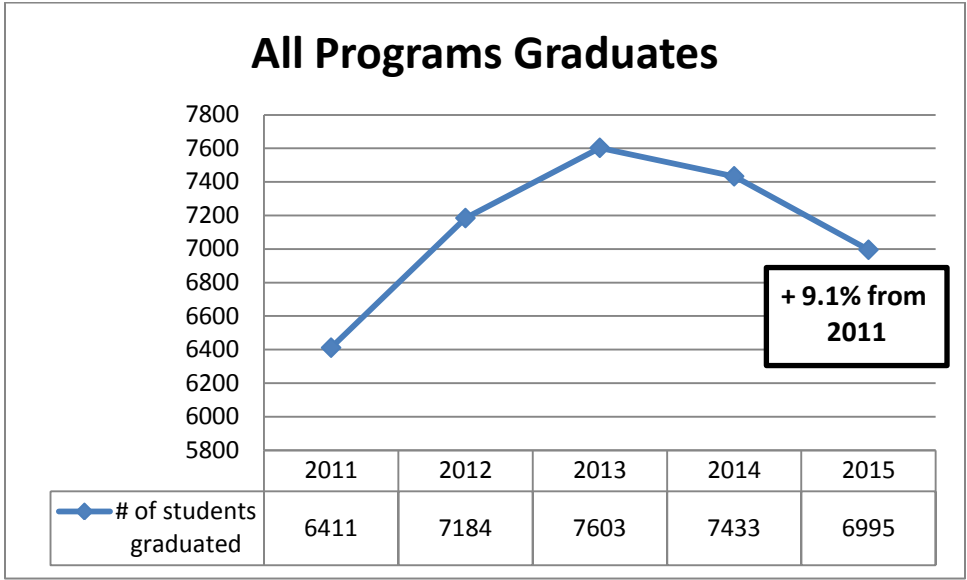
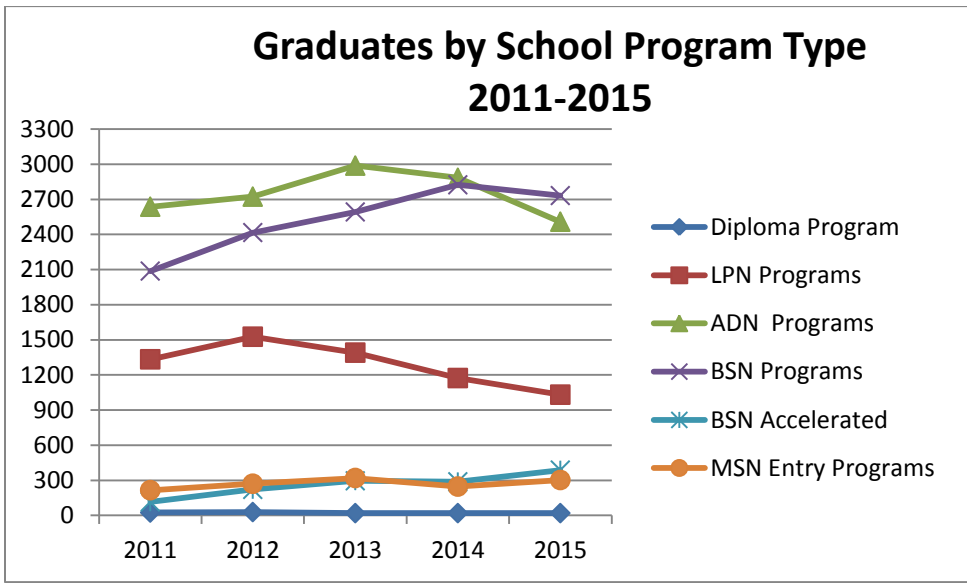


Figure 5

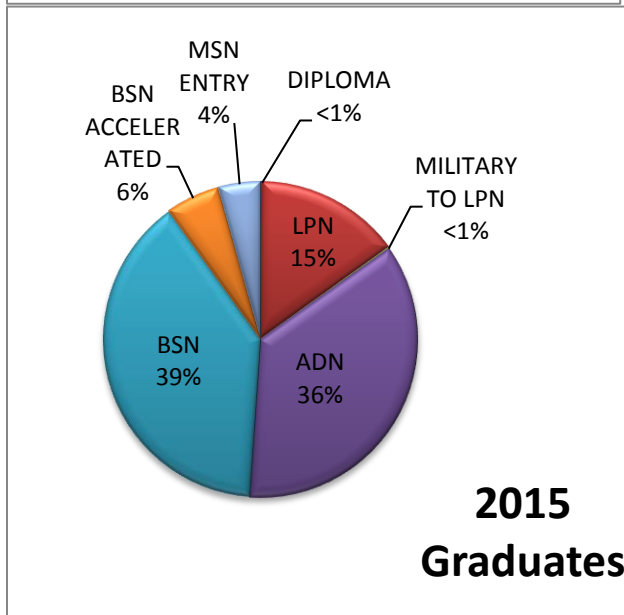
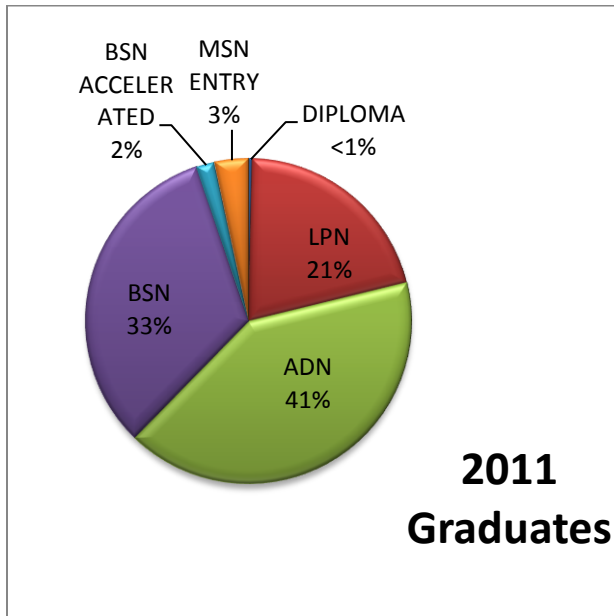


LPN Ladder program students are included in the ADN program calculations

Figure 5 (above) presents this same data, but by program type, while Figure 6 (below) presents the percentage of all graduates from each program type for 2011 and 2015. From 2011 until 2014, associate degree (ADN) programs produced the largest number of graduates out of all pre-licensure programs in Illinois. However, by 2015, bachelor's degree (BSN) programs produced the largest number of pre-licensure graduates in Illinois (39%). The percentage of graduates from BSN Accelerated programs also doubled from 2011 (3% to 6% in 2015) and master's degree (MSN) Entry program graduates also

increased by 1%. The percentage of annual graduates from LPN and ADN programs both declined.

Figure 6



LPN Ladder program students are included in the ADN program calculations

NURSING LICENSE (NCLEX®) PASS RATES

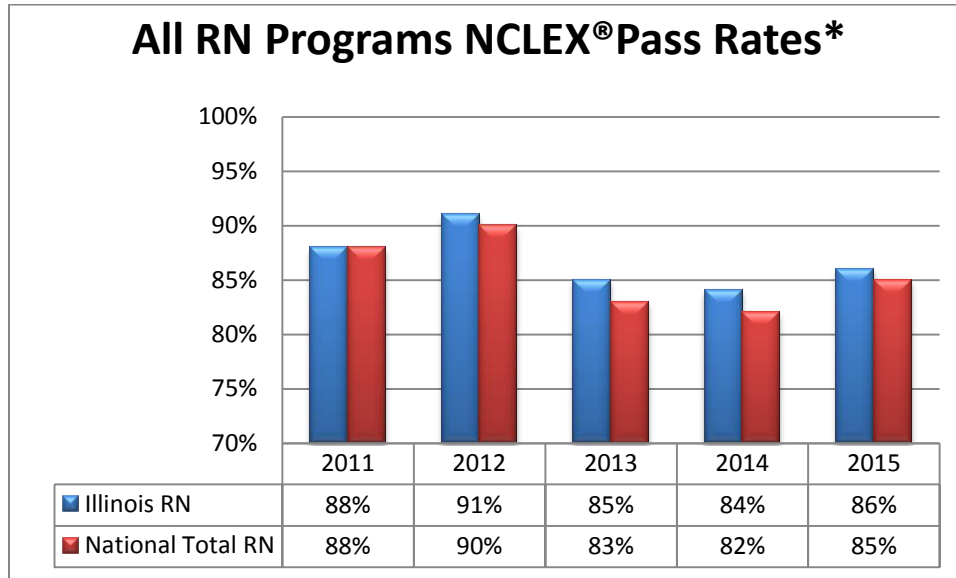
To enter into practice, nursing students must not only successfully graduate with their nursing degree, but they must also pass their respective National Council Licensure Examination (NCLEX®) exam in order to obtain a nursing license. If the student must take the exam on more than one occasion, or if they cannot pass the exam, then their entry into the nursing workforce is delayed or prohibited.

First-time NCLEX® test takers pass rate is often utilized as a measure of a pre-licensure nursing program's success and continued operation. According to the Rules for the Administration of the Illinois Nurse Practice Act, Sections 1300.230 (LPN) Approval of Programs, b) Continued Program Approval and 1300.340 (RN) Approval of Programs, b) Continued Program Approval, "A pass rate of 75% of first time writers will be required for a school to remain in good standing". Therefore, the examination of NCLEX® pass rates for pre-licensure programs in Illinois is important.

Illinois pass rates and national pass rates were obtained directly from National Council of State Boards of Nursing (NCSBN) annual reports (NCSBN, 2012; NCSBN, 2013; NCSBN, 2014; NCSBN, 2015; NCSBN, 2016). The passing standard for both NCLEX-RN® and NCLEX-PN® is evaluated and determined if it will be raised or left unchanged every three years. It is also important to note that the timeframe for reporting NCLEX® pass rates is per calendar year not fiscal year like the annual survey. In the following figures, the term *National* indicates total first-time test takers that are US educated for that particular degree while the term *National Total* indicates total first-time test takers that are US educated for all degree options for that particular exam.

Graduates of the Diploma, associate degree (ADN), bachelor's degree (BSN), BSN Accelerated and master's degree (MSN) Entry programs are eligible to take the NCLEX-RN® exam. Figure 7 below presents the NCLEX-RN® pass rate for all of these programs in Illinois from 2011 to 2015 along with the national total pass rate. This figure easily shows that the pass rate for these students in Illinois has met or exceeded the national total pass rate annually. It is important to note that effective April 1, 2013, the NCLEX-RN® passing standard was raised by the NCSBN. This correlates with the decline in the national total pass rate and Illinois pass rate after 2012. However, despite this increase in the passing standard, the pass rate for Illinois still exceed the national total pass rate.

Figure 7



**Includes Diploma, ADN, BSN, BSN Accelerated and MSN Entry program data*

The Illinois ADN programs have the same or higher annual pass rates as their national counterparts annually. Other than 2011, ADN programs in Illinois have met or exceeded the national total RN pass rate (Figure 8).

Figure 8

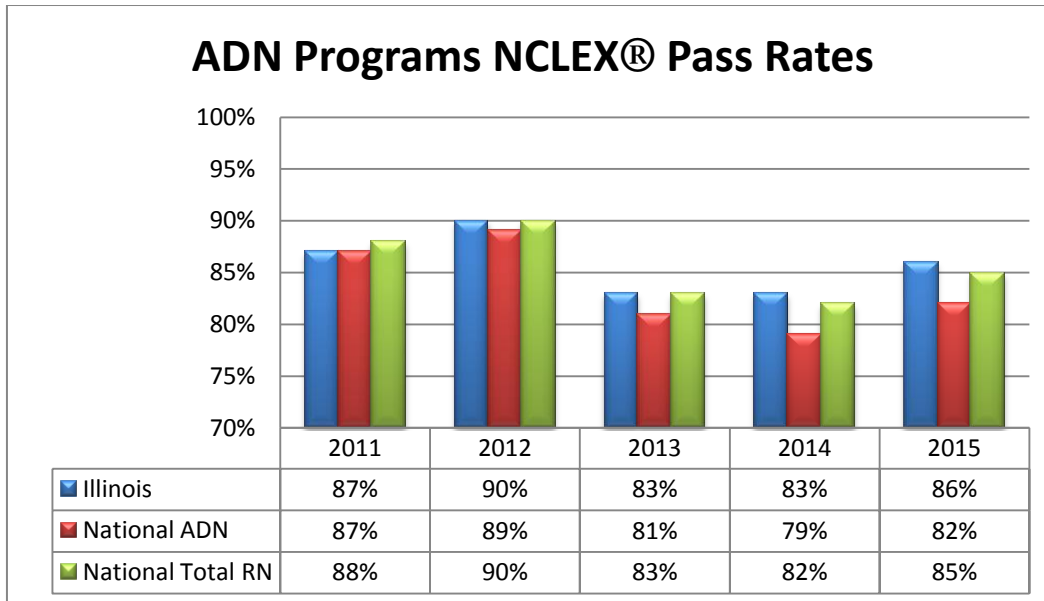
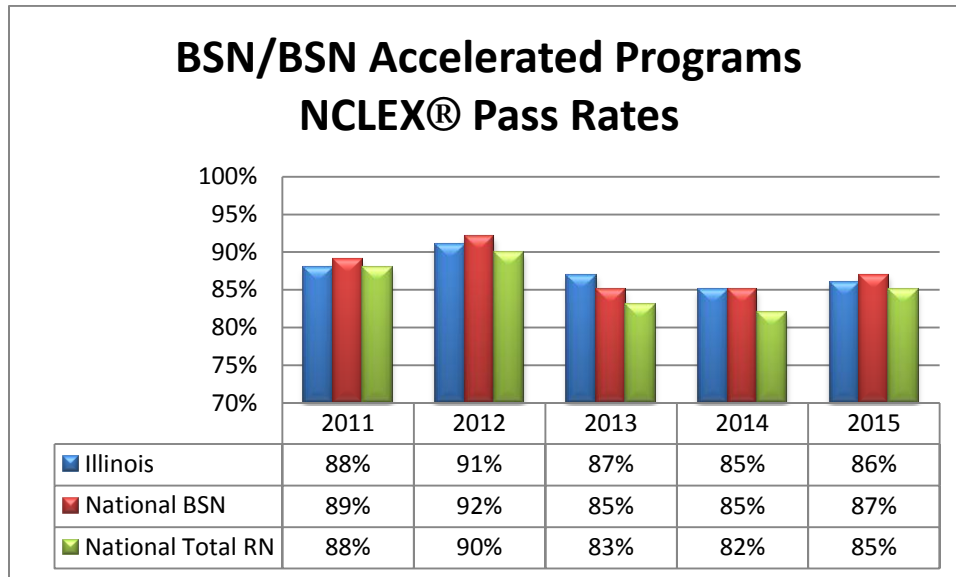


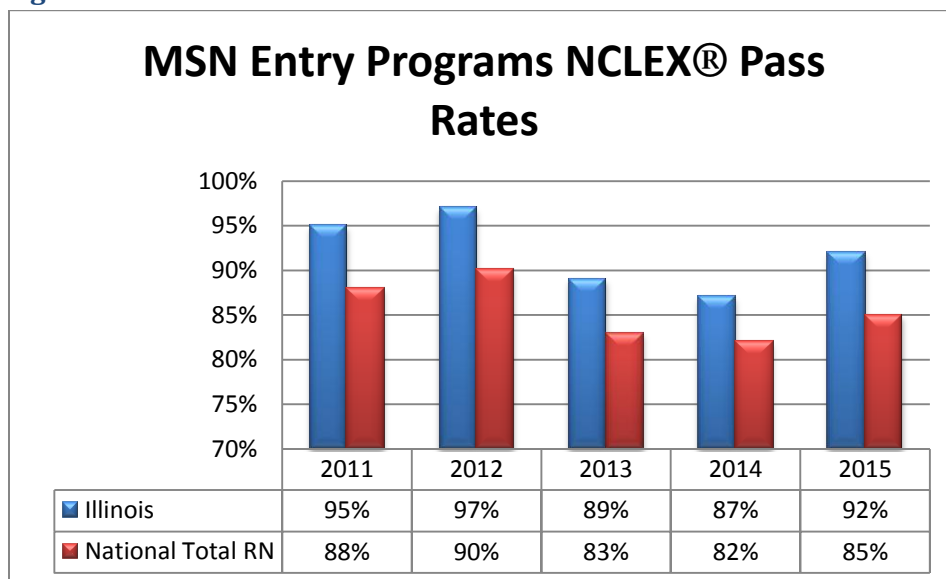
Figure 9 below shows the BSN/BSN Accelerated program annual pass rate has met or exceeded the national total RN pass rate annually as well. Illinois BSN/BSN Accelerated programs pass rates in Illinois have also been either slightly below their national counterparts (2011, 2012 and 2015) or slightly above or equal to their national counterparts (2013 and 2014).

Figure 9



NCSBN includes BSN Accelerated NCLEX pass rates in the BSN pass rates

Figure 10



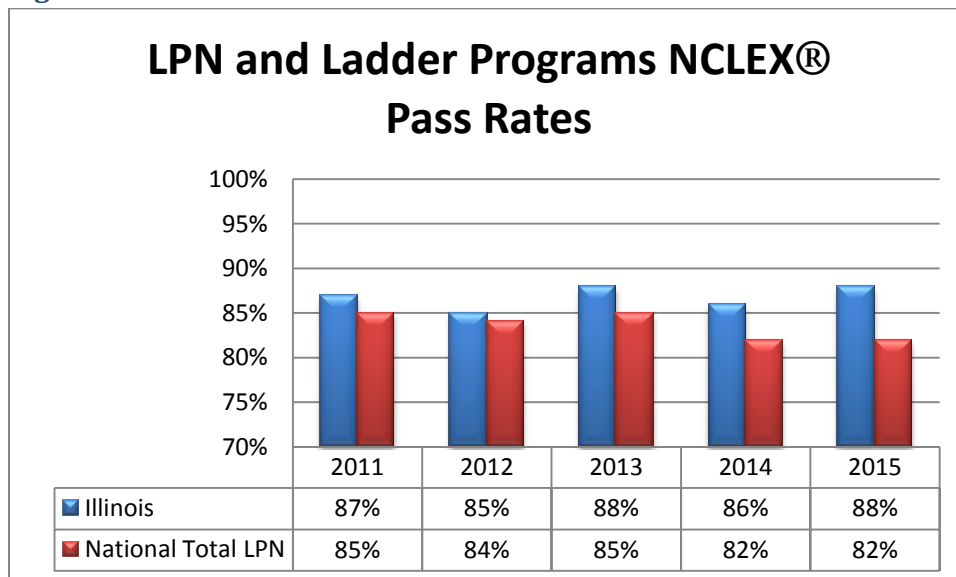
NCSBN includes BSN Accelerated and MSN Entry NCLEX pass rates in the BSN pass rates. Therefore, MSN Entry pass rates can only be compared to National Total RN pass rates.

Of the five types of pre-licensure programs in Illinois that prepare students for the NCLEX-RN®, MSN Entry programs had the highest pass rates (92% in 2015) (Figure 10). MSN Entry programs have exceeded the national total RN pass rate annually as well.

The hospital Diploma program pass rates have been below that of their national counterparts, and at times below the national total RN pass rate.

Graduates of LPN programs and students enrolled in ADN programs that have a LPN option (Ladder programs) are eligible to take the NCLEX-PN® exam. Figure 11 (below) presents the NCLEX-PN® pass rate for both of these programs in Illinois from 2011 to 2015, along with the national total pass rate. The annual pass rate for these LPN students has exceeded the national total pass rate annually. It is important to note that effective April 1, 2014, the NCLEX-PN® passing standard was raised by the NCSBN. This correlates with the decline in the national total pass rate after 2013. However, it is also important to note that despite this increase in the passing standard, the pass rate for Illinois still exceed the national total pass rate.

Figure 11

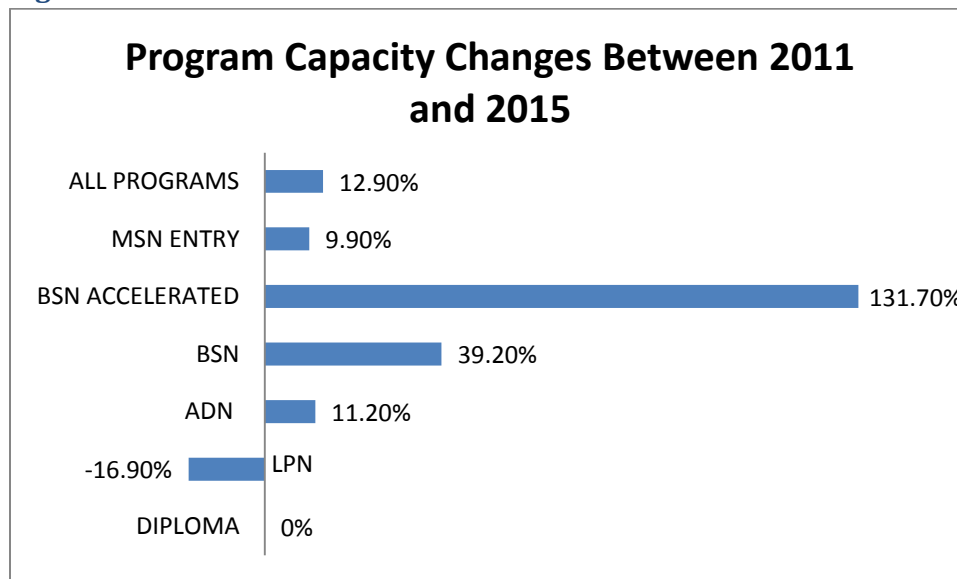


PROGRAM CAPACITY and QUALIFIED APPLICANTS

To ensure that Illinois can meet its demand for nurses, it's important to examine the capacity of pre-licensure programs. *Capacity* is defined as the total number of seats available during the fiscal year for all admissions. Figure 12 below presents the change in pre-licensure program capacity in Illinois between 2011 and 2015.

The capacity of all pre-licensure programs in Illinois combined has increased 12.9% since 2011. A capacity increase still occurred among associate degree (ADN) programs, despite the reduction in the total number of ADN programs. LPN programs saw a 16.9% decrease in capacity since 2011. From 2011-2015 the bachelor's degree (BSN) Accelerated programs had the greatest increase in capacity, from 252 seats in 9 programs to 584 seats in 12 programs, a 131.7% capacity increase and a 33% program growth,

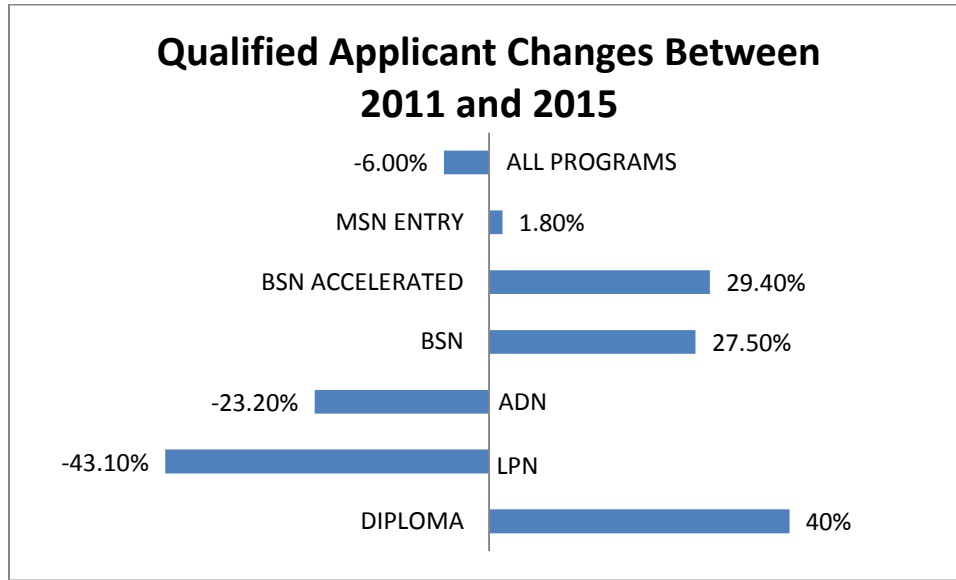
Figure 12



Includes both full-time and part-time students; LPN Ladder program students are included in the ADN Program calculations.

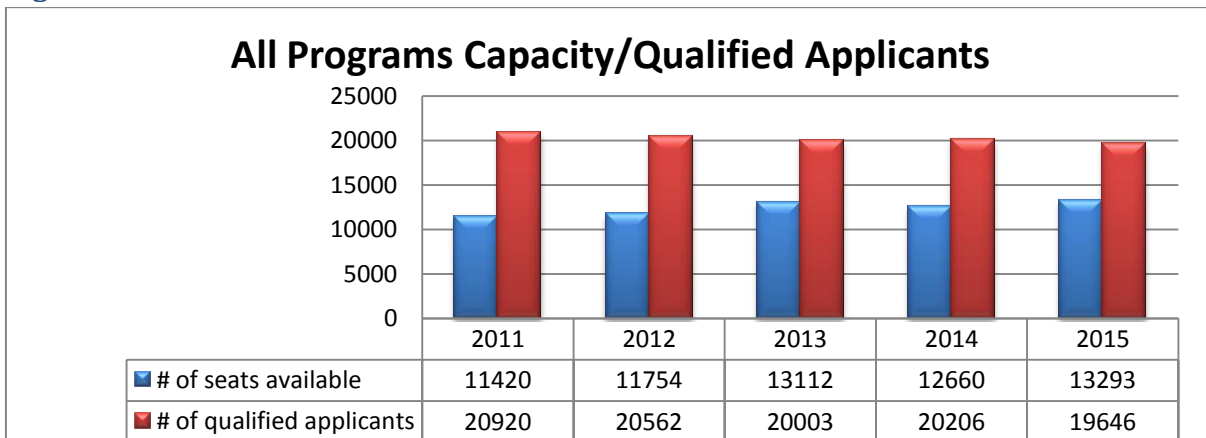
Capacity alone cannot meet the demand for student nurses. There must also be enough qualified applicants to fill the seats of these programs. *Qualified Applicants* is defined as the number of applicants who fully meet all the requirements for formal admission to the nursing program. Figure 13 (below) presents the change in qualified applicants to pre-licensure programs in Illinois between 2011 and 2015.

Figure 13



Includes both full-time and part-time students; LPN Ladder program students are included in the ADN Program calculations.

Figure 14



Includes both full-time and part-time students

Figure 14 above shows that the number of qualified applicants has exceeded capacity for all pre-licensure programs annually since 2011, even with the annual increase in program capacity. This indicates that despite pre-licensure capacity growth, the demand is still greater.

Since 2011, the total number of qualified applicants for all pre-licensure programs in Illinois has decreased 6%, yet the number of qualified applicants was still 47.7% over capacity in 2015 (Figure 14). During this time there was a large decline in qualified

applicants experienced in the LPN and ADN programs (-43.1% and -23.2%, respectively) since 2011. All other programs experienced an increase in the number of qualified applicants.

In 2015, the number of qualified applicants exceeded capacity for all pre-licensure programs, except for in LPN and Military to LPN programs. The largest difference was in BSN programs, with the number of qualified applicants exceeding capacity by 89.3%.

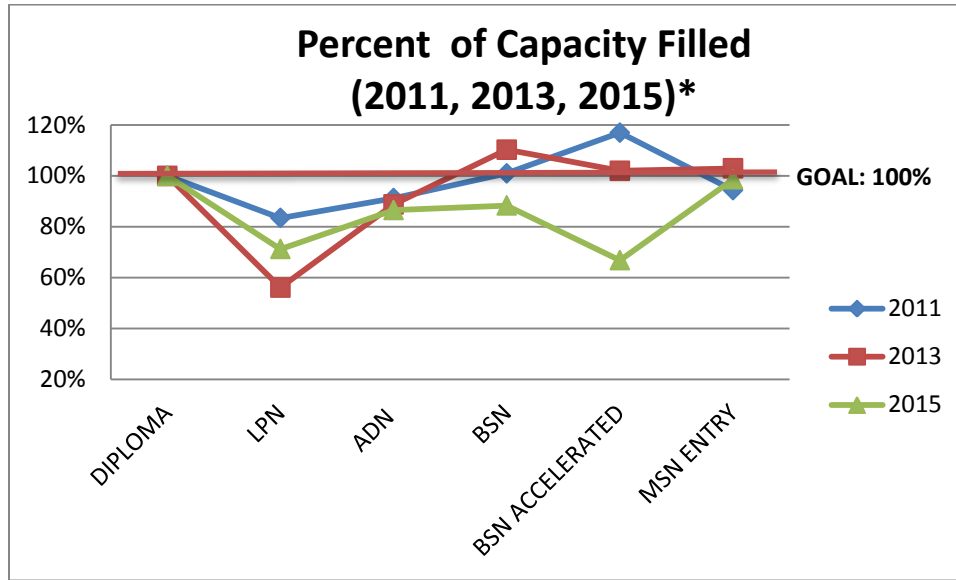
The number of qualified applicants to LPN programs has experienced a downward trend. In 2011, the number of qualified applicants exceeded capacity by 41.5%, but by 2015 the number of qualified applicants was only 3% less than capacity.

The number of qualified applicants to BSN Accelerated programs has also experienced a downward trend annually since 2011. However, in 2015, the number of qualified applicants still exceeded capacity by 27%, while the number of qualified applicants to MSN Entry programs exceeded capacity by 70.1%. Comparing BSN Accelerated to master's degree (MSN) Entry program data is important since both programs draw from the same pool of potential applicants (those that already have a bachelor's degree in another discipline). Therefore, the data may indicate that this pool of students may be more inclined to enter the MSN Entry programs than the BSN Accelerated programs.

CAPACITY/ADMISSIONS

Although pre-licensure nursing education programs strive to admit at 100% capacity, Figure 15 below illustrates that this does not always occur. There are reasons why this is, sometimes unattainable. First, applicants often apply to several programs at once to ensure acceptance to at least one program but cannot enroll in more than one program. If the applicant notifies the programs early enough of their declination of enrollment, programs can then offer that seat to another applicant. Other times, however, this notification does not arrive until shortly before or the day before classes start. When this occurs, it is too late to offer the seat to someone else and the seat then remains unfilled. Second, although an applicant may meet a particular program's criteria for admission, they may only meet it at the minimum level or that applicant may have other predictors present that indicate that they will not be successful if admitted. Therefore, that applicant may be denied admission.

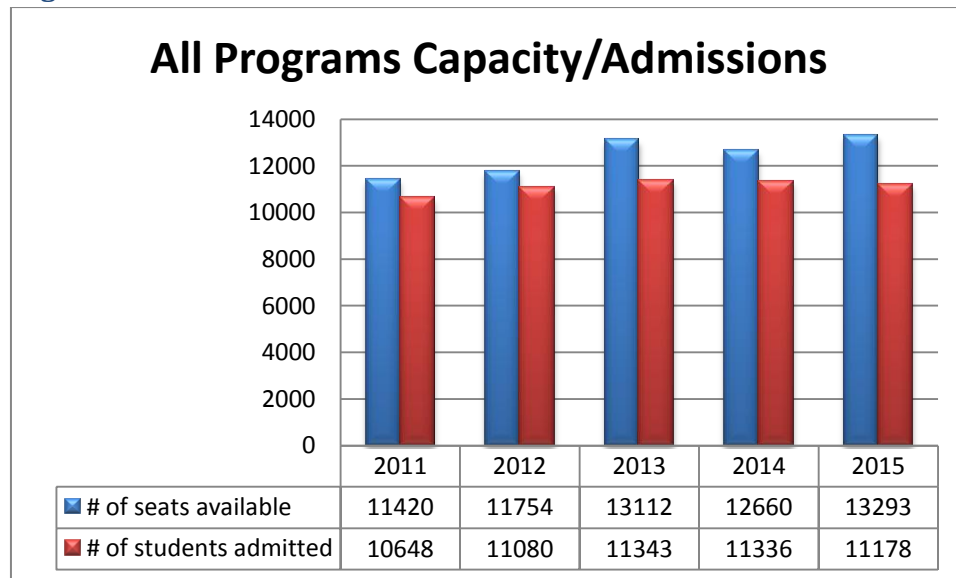
Figure 15



Includes both full-time and part-time students LPN Ladder program students are included in the ADN Program calculations.

Formally Admitted students are defined as qualified individuals who receive official notice from the institution that they are invited to begin the nursing program at a designated point in time, and they enroll in the program in the specified fiscal year. In other words, this data is representative of exactly how many students are enrolled in a program and moving forward with their pursuit of a nursing degree.

Figure 16



Includes both full-time and part-time students

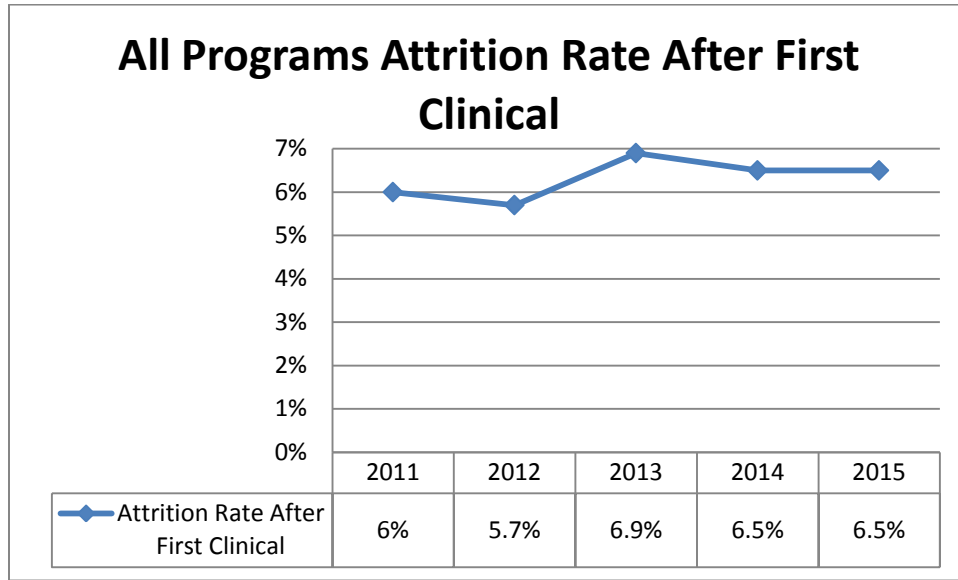
In 2011, all pre-licensure programs in Illinois were at 93.3% capacity but by 2015, they were at 84.1% of capacity (Figure 16, above). Since 2011, pre-licensure program admissions in Illinois have grown 4.9%. All programs, except for Diploma and LPN programs, experienced an increase in admissions from 2011 to 2015. The largest admissions increase from 2011-2015 was in BSN Accelerated programs, 295 to 391 students admitted, an increase of 32.5%, followed by BSN programs, 3,713 to 4,526 students admitted, an increase of 21.8%. During this same time period, LPN admissions decreased from 2,310 to 1,646, a decrease of 29%, which is consistent with the decline in the number of qualified applicants. MSN Entry programs have been admitting at 94% of capacity or greater annually since 2011. BSN Accelerated programs had the largest increase in admissions since 2011 and were at 66.9% capacity in 2015. This could be related to the increase in the number of BSN Accelerated programs available (from 9-12 programs), as well as sharing the same pool of applicants as MSN Entry programs, students with a degree in another field. BSN programs were at 88.4% capacity, ADN programs at 86.6% capacity and LPN programs at 71.3% capacity in 2015.

ATTRITION RATE AFTER FIRST CLINICAL

The annual survey asks pre-licensure programs to report the number of students who leave the program after attending their first clinical course. This is defined as the first time when students attend site-based field experiences where nursing students contribute to direct patient care under the supervision of a licensed instructor. This figure, along with the number of students the program reported admitting for that year, was used to calculate the attrition rate.

Figure 17 below shows the attrition rate for all pre-licensure programs in Illinois has remained essentially unchanged since 2011. In 2011 the attrition rate was 6% and in 2015 it was 6.5%. Once students are admitted to a pre-licensure program, they must remain in that program through graduation so they can have the opportunity to take the national licensure exam (NCLEX®) and enter the nursing workforce. This is especially important in pre-licensure nursing programs because if a student leaves a pre-licensure program once that cohort has started, their place in the program will usually not be replaced by another qualified student.

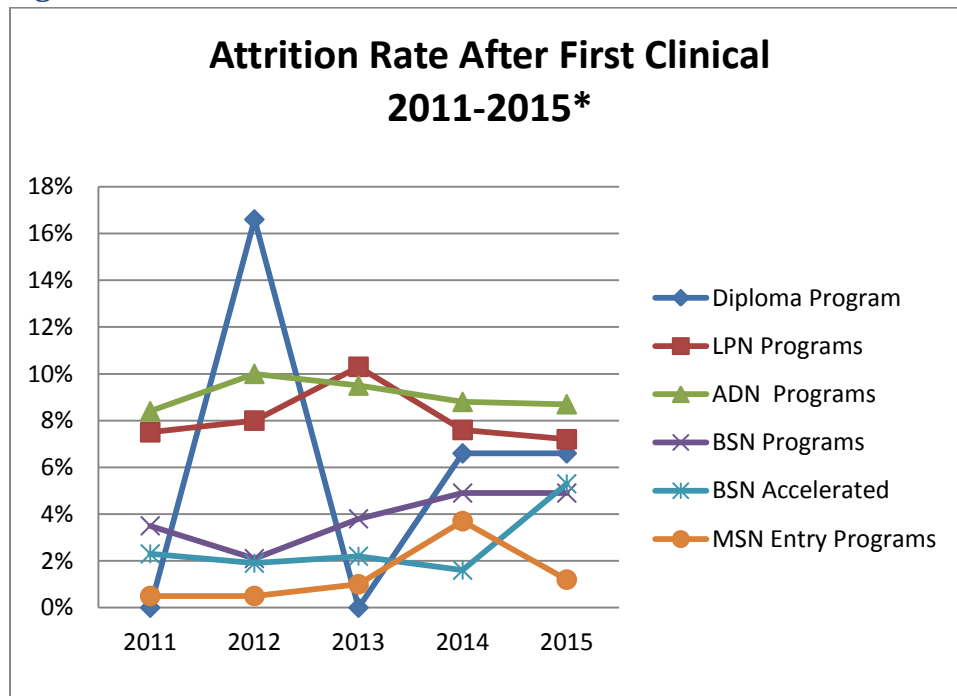
Figure 17



Includes both full-time and part-time students

Figure 18 below shows the variance among program types. When examining this same data by program type, attrition rates increased for all programs from 2011 to 2015, except for LPN programs, which experienced a 0.3% decline in their attrition rate. MSN Entry programs have the lowest attrition rates (1.2% in 2015) amongst all programs.

Figure 18



Includes both full-time and part-time students; LPN Ladder program students are included in the ADN program calculations.

Pre-Licensure Nursing Students Demographics

DIVERSITY

While predominantly White/Caucasian and female, the nursing workforce is slowly becoming more diverse and so is the pre-licensure student population. In Illinois, the percentage of pre-licensure students who belong to a racial or ethnic minority group was greater than the national average (IL 32.4% US 28%), (NLN, 2014c).

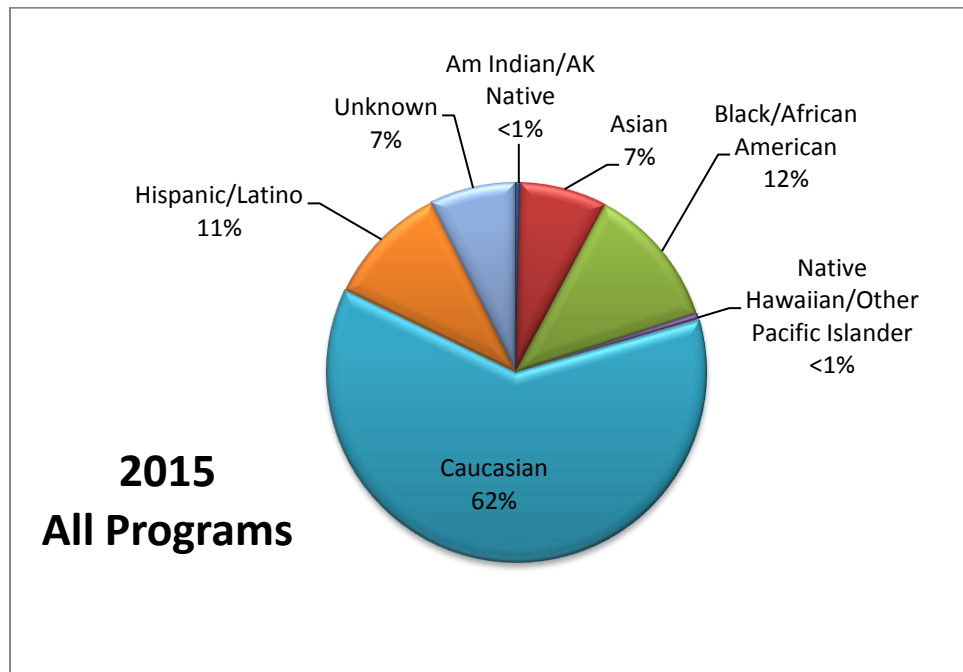
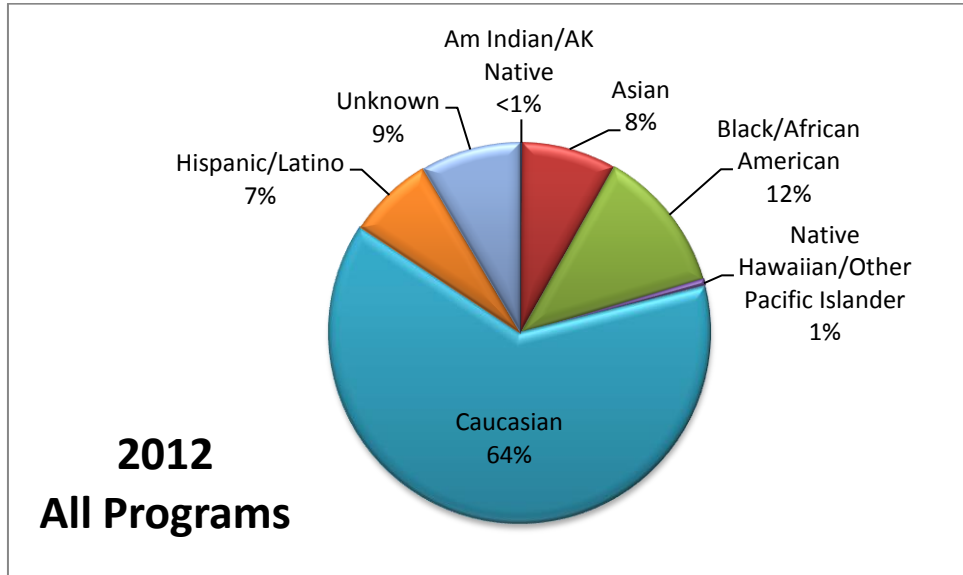
Figure 19 below compares the racial and ethnic diversity of pre-licensure nursing students in Illinois in 2012 to that in 2015. When examining these figures, it is evident that diversity has increased since 2012. In fact, the percentage of pre-licensure nursing students in Illinois belonging to a racial or ethnic minority has overall increased by 2.6% since 2012. The majority of the students are non-Hispanic/White, but the percentage has decreased slightly from 64% in 2012 to 62% in 2015. The percentage of non-Hispanic/Black students has remained the same at 12% but the Hispanic student population has increased by 4% from 7% to 11%. American Indian/Alaskan Native and Native Hawaiian/Other Pacific Islander student population still remain the smallest (1% or less) while the Asian student population remains approximately the same (decrease from 8% to 7%).

It is important that these future nurses mirror the racial and ethnic diversity of the population that they will serve, since providing a more diverse nursing work force can improve patient satisfaction, quality of care and cultural competency (LaVeist & Pierre, 2014). In 2015, residents of Illinois were 77.3% non-Hispanic/White, 14.7% Non-Hispanic/Black, 16.9% Hispanic, 0.6% American Indian/Alaska Native, 5.5% Asian and <1% Native Hawaiian/Other Pacific Islander (United States Census Bureau, 2015). Comparing these figures to 2015 student racial and ethnic diversity data illustrates that the pre-licensure student body in Illinois essentially emulates that of the general population in Illinois, other than Hispanic and non-Hispanic Black which are slightly less than the Illinois population.

The largest minority group among all pre-licensure programs in Illinois is non-Hispanic/ Black, except for the master's degree (MSN) Entry program where the largest group is Asian (11.4% in 2015) and the bachelor's degree (BSN) program where the largest group is Hispanic (12.3% in 2015). Of all of the pre-licensure programs in Illinois the LPN program students are the most diverse, with 62% of students belonging to a racial or ethnic minority group in 2015. Bachelor's degree (BSN) Accelerated program students had the largest increase in diversity out of all the pre-licensure programs (+7.7% since 2012).

From 2012-2015, the percentage of students belonging to an ethnic or racial minority group in all pre-licensure programs, LPN, ADN, BSN and MSN Entry programs, increased anywhere from 4% to 7%.

Figure 19



Includes both full-time and part-time students

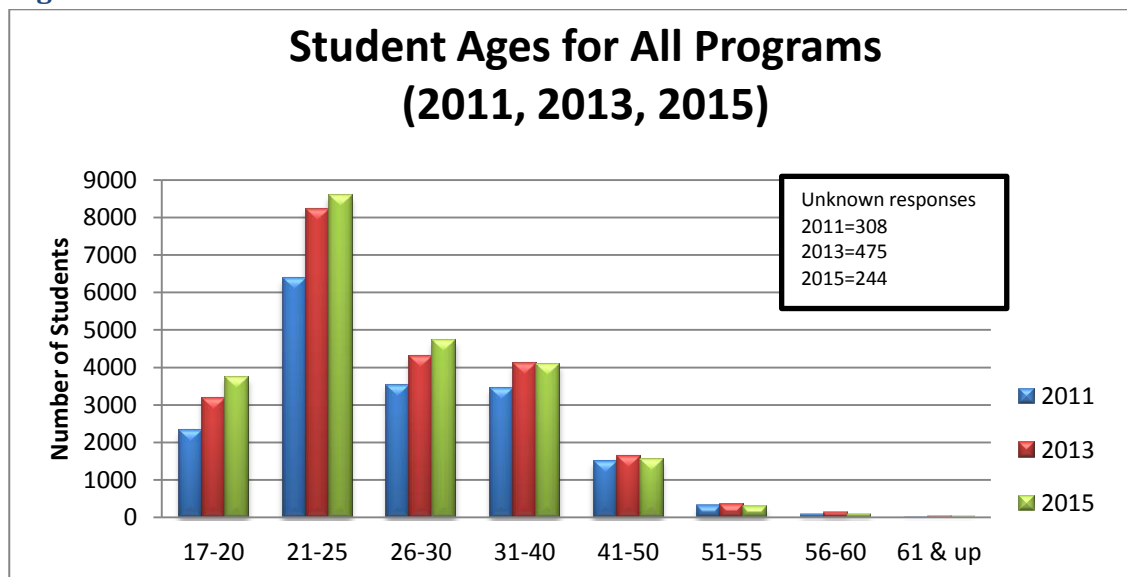
Compared to 2014 national data reported by NLN (2014b), there were more non-Hispanic/Black (IL 12.7%, US 12.2%), Hispanic (IL 9.1%, US 8.1%) and Asian/Native

Hawaiian/Other Pacific Islander (IL 8.3%, US 5.9%) pre-licensure students in Illinois. This is encouraging information for diversity efforts in Illinois.

AGE

A human capital perspective is essential for the full appreciation of the role of health care, education and workforce development in promoting economic growth and societal well-being (IDFPR Registered Nurse Workforce Survey Report, 2014). Age is one essential human capital component. The largest age group among pre-licensure nursing students continues to be 21-25 years of age with the age distribution remaining essentially unchanged since 2011 (Figure 20). In 2015, 74% of pre-licensure students were 30 years or younger. This is helpful for workforce planning since the younger the students are at graduation and entering the workforce, the greater the longevity they will have in the workforce.

Figure 20

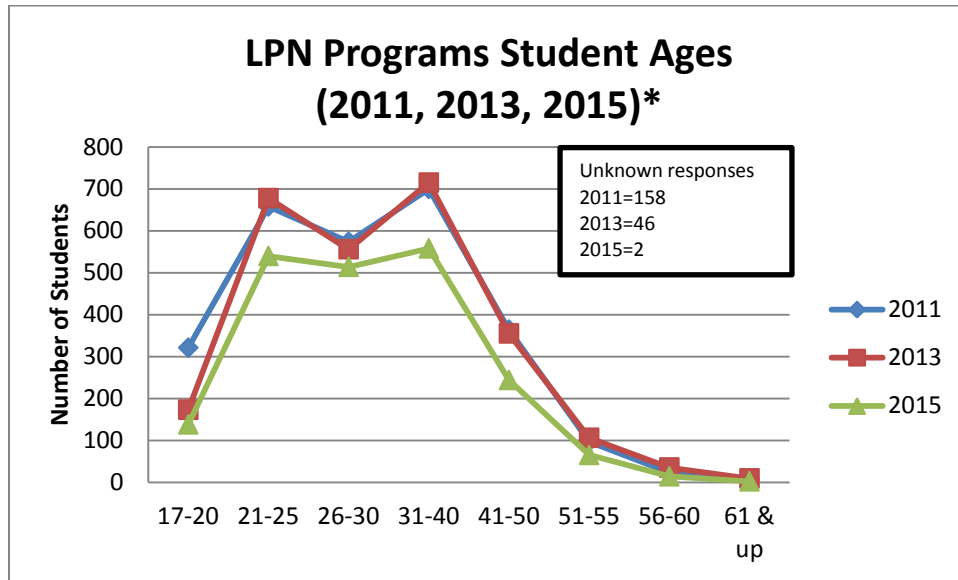


Includes both full-time and part-time students

The LPN (Figure 21, below) and the associate degree (ADN) (Figure 22, below) pre-licensure nursing education programs are unique with two age peaks at 21-25 years and 31-40 years of age. This reflects that nursing is often a second career for those attending these educational programs. Though the largest age group among LPN and ADN program students is 31-40 years of age, there is only a 0.03% difference between this group and the

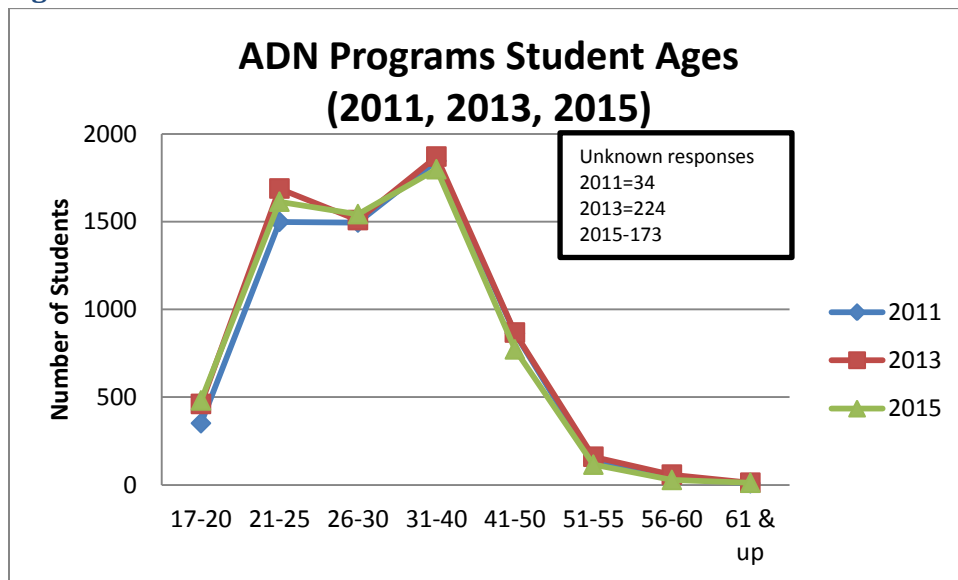
number of students in the 21-25 years age group in the LPN program (Figure 21) but 11.4 % difference between these two age groups amongst ADN program students (Figure 22).

Figure 21



Includes both full-time and part-time students

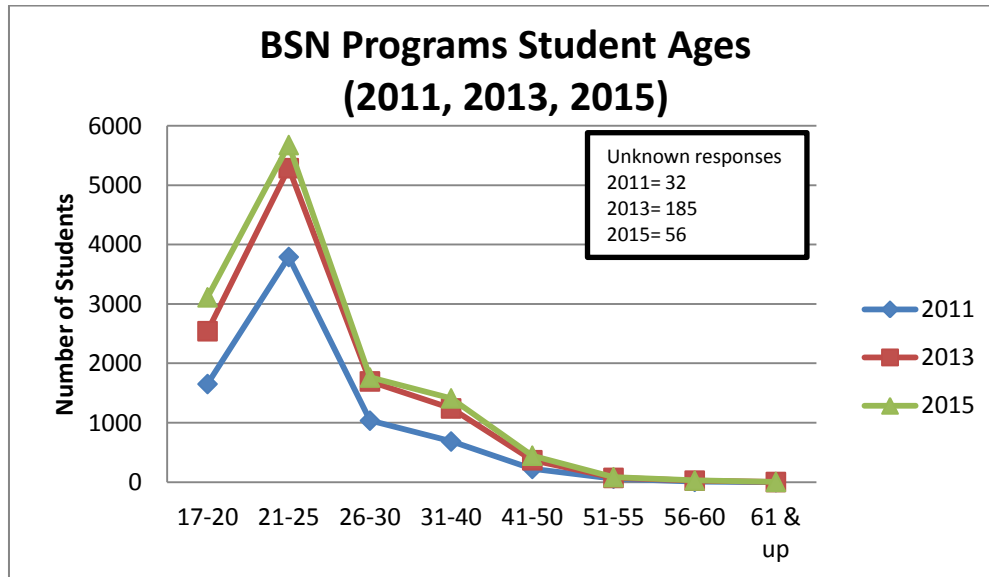
Figure 22



Includes both full-time and part-time students; LPN Ladder program students are included in these calculations.

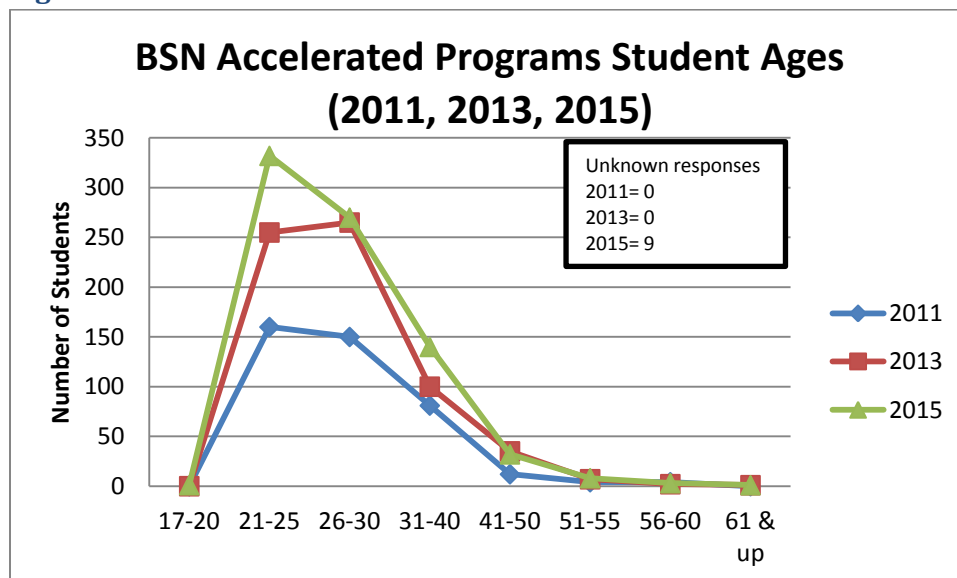
The largest age group among bachelor's degree (BSN) and BSN Accelerated program students continues to be 21-25 years of age (Figures 23 and 24). From 2011 to 2015, all age groups among BSN program students experienced growth. One of the criteria for students enrolled in BSN Accelerated programs is that the student has completed a non-nursing degree. This provides an explanation as to why there is almost a second peak in the 26-30 year age group (Figure 24).

Figure 23



Includes both full-time and part-time students

Figure 24



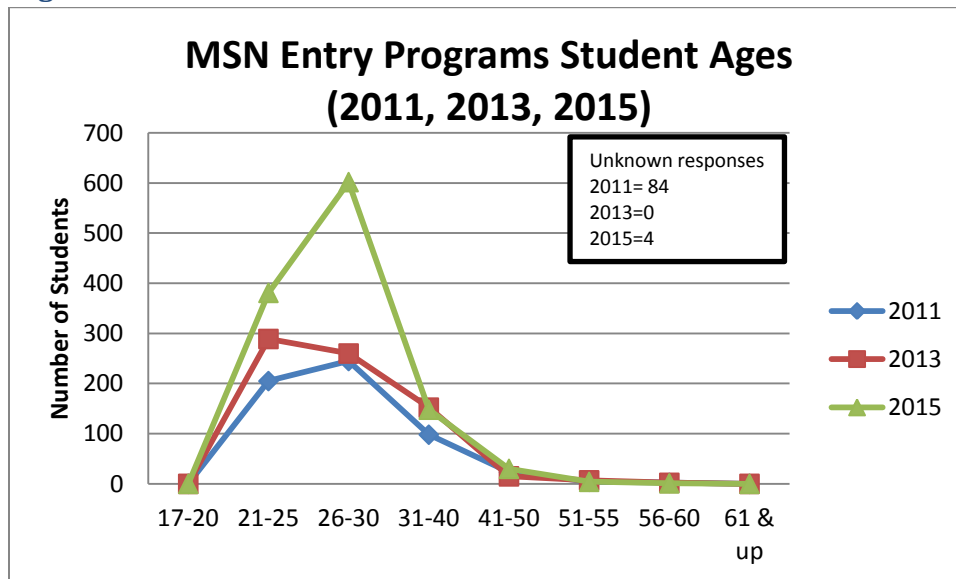
Includes both full-time and part-time students

Figure 25 below presents the ages of master’s degree (MSN) Entry program students. The majority of these students are 26-30 years of age. This also was the largest age group increase (+145.7%) since 2011; from 245 students in 2011 to 602 students in 2015.

In Illinois there is one hospital diploma program. The largest age group amongst students in this program continues to be 21-25 years old; but, from 2011 to 2015, the largest age group increase (+50%) was in the 17-20 years age group, 5 students in 2011 to 10 students in 2015; followed closely by those 21-25 years (+45.8%), 24 students in 2011, 35 students in 2015

Examining the percentage of students older than 30 years of age by pre-licensure program and comparing it to national data can provide valuable information for workforce planning as well. When compared to 2014 national figures, Illinois had a slightly higher percentage of diploma, LPN and ADN program students older than 30 years, but a slightly lower percentage of BSN students younger than 30 years (NLN, 2014f).

Figure 25

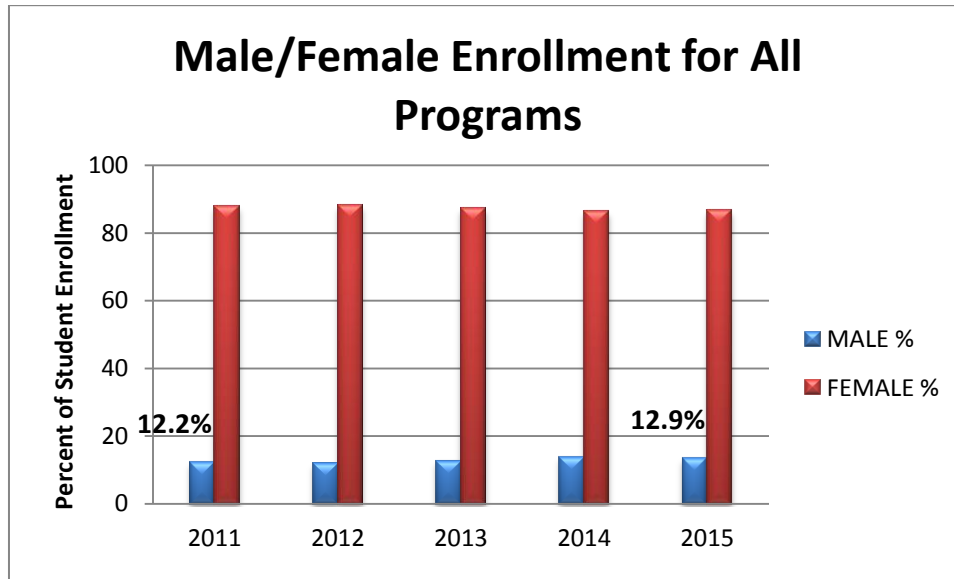


Includes both full-time and part-time students

GENDER

Females continue to be the predominant gender among Illinois pre-licensure nursing students. Male student enrollment in pre-licensure nursing programs in Illinois has remained essentially the same since 2011 (Figure 26) and is less than 2014 national figures (IL 13.7%, US 15%) (NLN, 2014e).

Figure 26

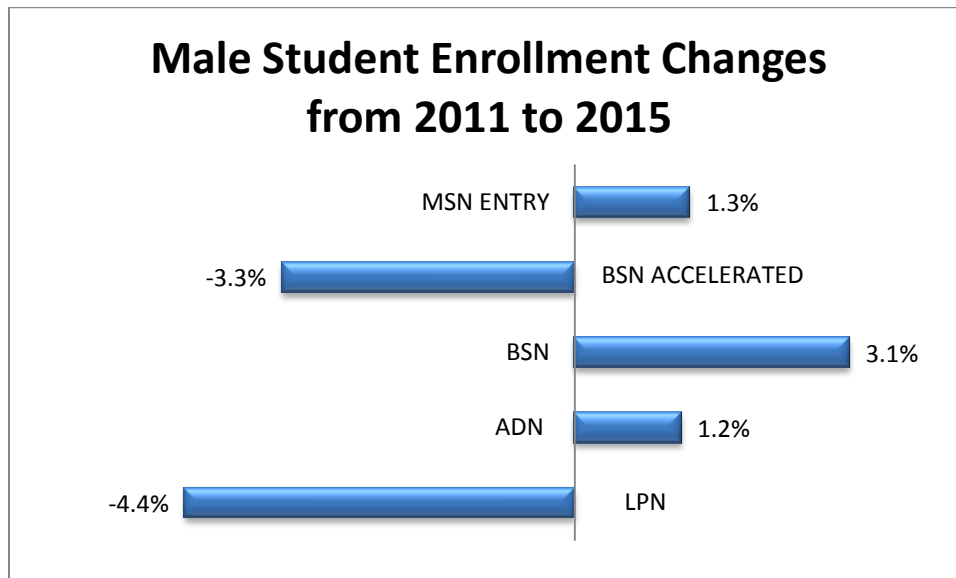


Includes both full-time and part-time students

Figure 27 below presents the male enrollment changes amongst the various pre-licensure nursing programs from 2011 to 2015. The largest increase in male student enrollment was in bachelor's degree (BSN) programs (+3.1%), resulting in 12.9% male students enrollment in 2015. However, BSN Accelerated programs have the largest male student enrollment at 16.1% despite a 3.3% decrease since 2011. Master's degree (MSN) Entry programs' male student enrollment also increased 1.3% since 2011 to 12.5% in 2015. Associate degree (ADN) programs' male student enrollment increased 1.2% since 2011, despite an overall student enrollment decrease of 2.4%, resulting in 14.8% male student enrollment in 2015. LPN programs experienced the largest decrease in male student enrollment from 2011 to 2015 (-4.4%), resulting in 10.8% male student enrollment in 2015.

When looking at national data from 2014, Illinois' male nursing student enrollment in 2014 exceeded national figures for LPN programs (IL 14.8%, US 9%) and ADN programs (IL 15.1%, US 15%), but was below national figures for hospital diploma programs (IL 4.8%, US 13%) and BSN programs (IL 12.7%, US 15%) (NLN, 2014d).

Figure 27



Includes both full-time and part-time students

Pre-Licensure Nursing Faculty

EMPLOYMENT STATUS

Compared to 2011, the faculty vacancy rate for all pre-licensure programs in Illinois has almost doubled (1.9% to 3.6% in 2015). The majority of pre-licensure nursing programs have had an increase in their faculty vacancy rates, with the bachelor's degree (BSN) programs' vacancy rate being the largest (5.4% in 2015). Since BSN programs had the largest enrollment increase, a greater demand for BSN faculty is expected. However, even with associate degree (ADN) and LPN programs experiencing a decline in enrollment, their vacancy rates still increased as well.

According to a survey sponsored by the American Association of Colleges of Nursing (AACN) for the 2014-2015 academic year, the faculty vacancy rate nationally was reported as 6.9% and 9.1% for the Midwest region (Li & Fang, 2015). However, it is important to note that this figure does not include part-time faculty data or data from Diploma, LPN, or ADN programs, but does include graduate program data. The U.S. Bureau of Labor Statistics (2016) predicts that by the year 2024 the number of nursing faculty positions nationally will increase by 19.3%. Again, this includes graduate faculty demand, but it still illustrates that the demand for nursing faculty is not predicted to diminish.

Figure 28 compares the number of full-time and part-time faculty employed to the number of full-time and part-time faculty budgeted for each year. When examining this figure, there is a difference between the number of budgeted and the number of employed part-time faculty in pre-licensure education programs

Figure 28

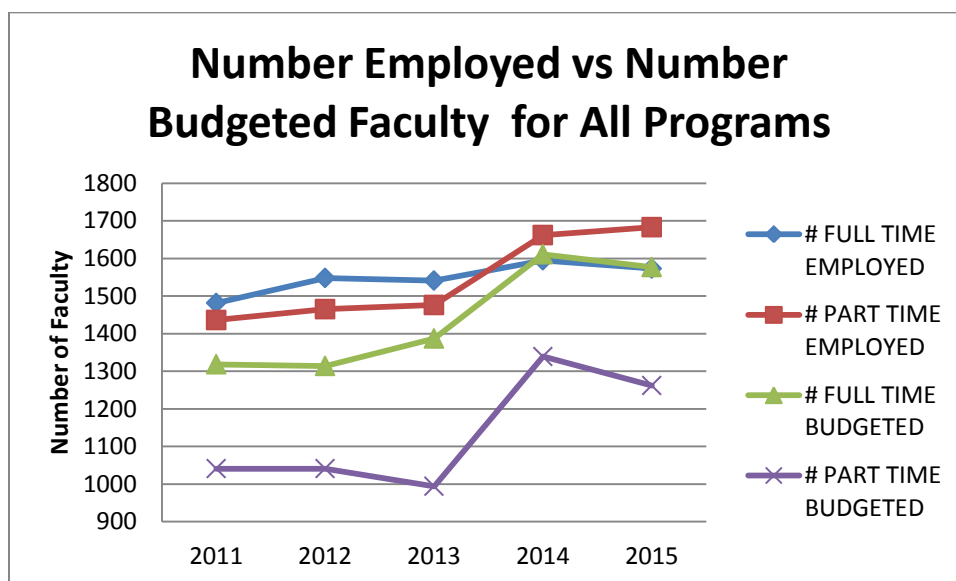
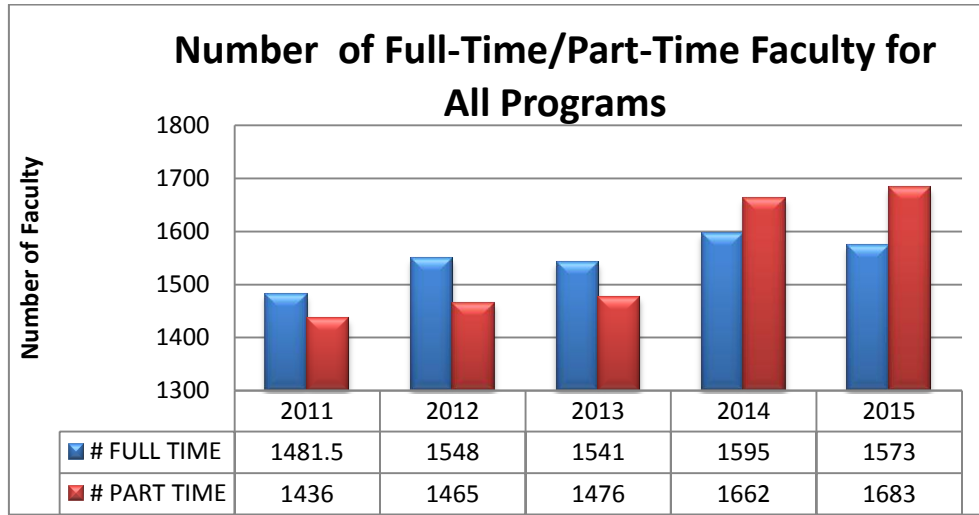


Figure 29

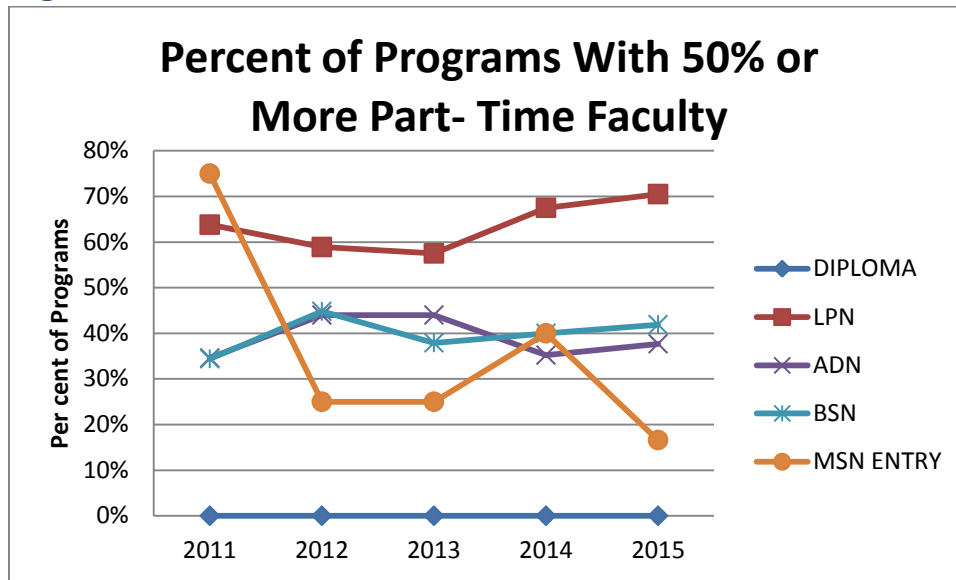


Since 2011, the number of full-time faculty employed in all pre-licensure programs in Illinois increased 6.1% while the number of part-time faculty employed increased by 17.2% (Figure 29 above). According to the Colorado Center for Nursing Excellence (2012), full-time faculty usually absorbs the majority of the responsibility for curriculum content and development, as well as program leadership

According to the Rules of the Administration of the Illinois Nurse Practice Act, Section 1300.230 Approval of Programs, g) Nursing Administrator and Faculty, 11) *The ratio of students to faculty in the clinical area shall be appropriate to the clinical and the experience: A) when under direct supervision of the faculty, the ratio shall not exceed 10:1.* Therefore, this increase in faculty employment coincides with the increase in student enrollment; however, it does not negate the increase in the vacancy rate described previously.

Figure 30 below presents the percentage of programs in Illinois with 50% or more of their faculty employed part-time (by program type). In 2015, LPN programs had the greatest percentage of programs with 50% or more of their faculty employed part-time (70.5%). In 2011, MSN Entry programs had the largest percentage (75% of their programs had 50% or more part-time faculty), but by 2015 this decreased to 16.6%. In 2011, BSN and ADN programs' had similar percentages, but by 2015 the BSN programs' percentages became larger than the ADN programs.

Figure 30



BSN Accelerated faculty data is included in the BSN program calculations and figures

When examining full-time and part-time employment rates by program type, ADN program faculty full-time employment figures have essentially remained unchanged, but the number of faculty employed part-time has declined 11.8% since 2011. Also, the number of budgeted full-time faculty in ADN programs has declined 4.9%, but the number of budgeted part-time faculty has increased 2%.

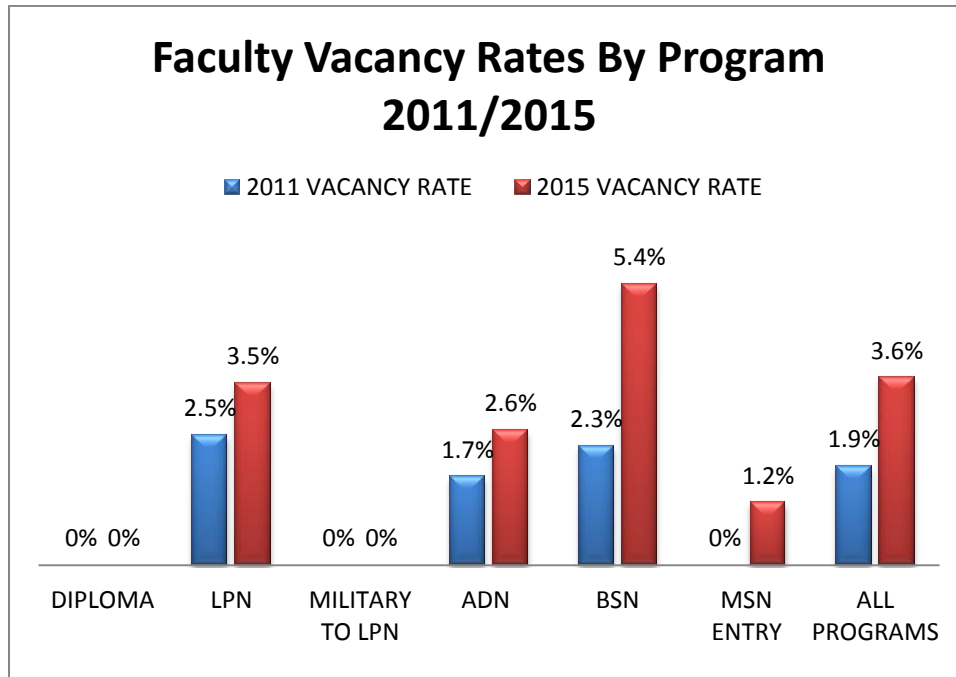
Both the number of full-time faculty employed and budgeted for in LPN programs has declined since 2011 (-22.6% and -31.8%, respectively). The same is true for part-time faculty, but at much smaller percentage comparatively (-9.9% for employed part-time faculty and -11.7% for budgeted part-time faculty). There has also been a decrease in LPN programs during this same time period, from 36 to 34.

For two programs, BSN and MSN Entry, the demand for full-time faculty is high, and they are employing more full time faculty than is budgeted. From 2011 to 2015 the BSN programs employed 10.6% more faculty, while the number of budgeted faculty increased by 31.5%. The MSN Entry programs employed 25.8% more faculty from 2011 to 2015, but there was a 154.9% increase in budgeted positions. During this same time period there was an increase in BSN programs from 29 to 31 and MSN Entry programs from 4 to 6. For part-time faculty in both programs BSN programs experienced a 54.7% increase in employed part-time faculty and 27.3% increase in budgeted part-time faculty since 2011, while MSN Entry programs experienced a 21.1% increase in employed part-time faculty and 122.3% increase in budgeted part-time faculty.

Figure 31 presents the faculty vacancy rates for 2011 and 2015 for all pre-licensure programs combined, as well as by program type. This figure illustrates a trend of

increasing faculty vacancies and the National League for Nursing (NLN) (2015) has identified faculty vacancies as one of the key obstacles in the continued expansion of nursing programs. In 2015, over 80% of pre-licensure programs nationally were actively attempting to hire more faculty (NLN, 2016b). Illinois' nursing education programs are not unique in experiencing faculty vacancies.

Figure 31



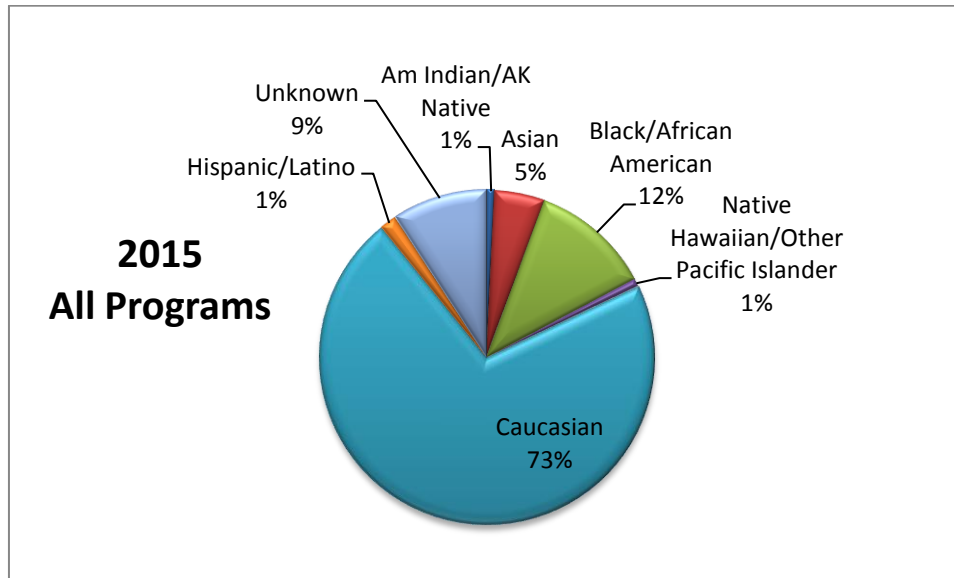
BSN Accelerated faculty data is included in the BSN program calculations and figures

DIVERSITY

The diversity of pre-licensure nursing faculty in Illinois is an important demographic variable to explore. Figure 32 presents the racial and ethnic diversity of pre-licensure nursing faculty in Illinois in 2015. Since 2012, the percentage of pre-licensure nursing faculty belonging to a racial or ethnic minority group increased 1.3%. In 2012, the majority of faculty was non-Hispanic/White (78%) but by 2015, this had decreased to 73%. The largest minority group represented among all pre-licensure nursing faculty remains non-Hispanic/Black (12%).

The ethnic diversity of Illinois' pre-licensure faculty essentially mirrors that of national figures. In 2015, 16% of full-time pre-licensure faculty belonged to a racial/ethnic minority nationally (NLN, 2016a); while in Illinois it was 15%. The single difference was among the number of Hispanic full-time pre-licensure faculty, which was 1% in Illinois but 3.7% nationally (NLN, 2016a).

Figure 32



Includes both full-time and part-time faculty

Of all of the pre-licensure programs in Illinois, the LPN program faculty are the most diverse with 46.2% of faculty belonging to a racial/ethnic minority group in 2015. Bachelor’s degree (BSN) program faculty experienced the largest increase (+5.8%) in diversity amongst all pre-licensure programs in Illinois. From 2012-2015, the percentage of Associate degree (ADN) program faculty belonging to an ethnic or racial minority remained essentially unchanged at approximately 21% while the number of master’s degree (MSN) Entry program faculty belonging to an ethnic or racial minority group decreased slightly (-1.8%).

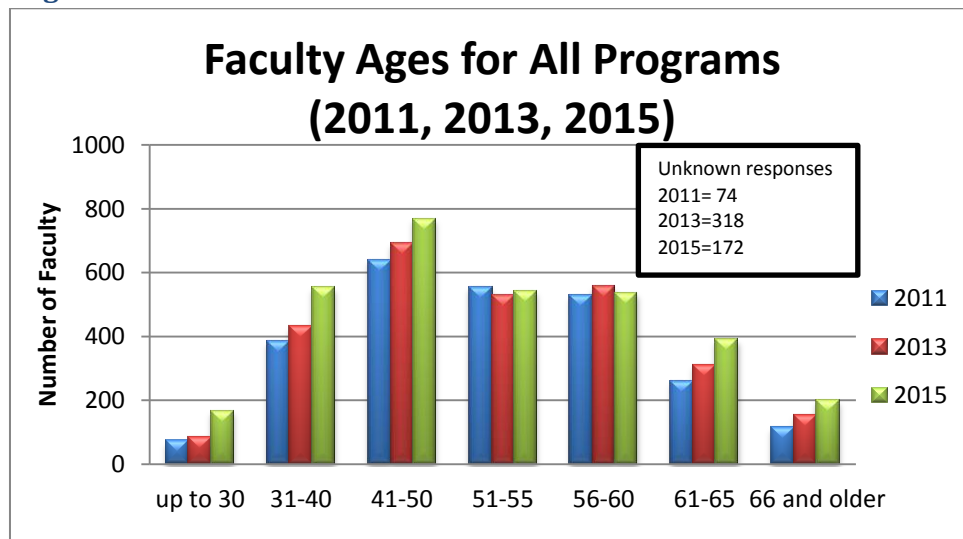
The lack of a diverse nursing faculty has been identified by the American Association of Colleges of Nursing (AACN) (2015) as having the potential to negatively impact students, nursing academia and the health status of the American people. It is proposed that without ethnic and racially-similar faculty for students to interact with could lead to higher attrition rates and lower graduation rates (National Advisory Council on Nurse Education and Practice, 2013).

AGE

The age of the nursing workforce is a demographic variable that is often examined and discussed by workforce planners, and the age of nursing faculty is no exception. The aging of nurse faculty has been identified as one of the major barriers in meeting pre-licensure educational needs (IOM, 2011).

Figure 33 below presents the faculty age distribution among all pre-licensure programs in Illinois for 2011, 2013 and 2015. This figure demonstrates that the age distribution of pre-licensure nursing faculty in Illinois remains essentially unchanged from 2011. The largest age group among pre-licensure faculty, 41-50 years of age, has remained the same as well. According to American Association of Colleges of Nursing (AACN) data for academic year 2013-2014, nationally the average age of doctorally-prepared faculty (based on rank) ranged from 51.4-61.6 years of age while the average age of master's-prepared faculty (also based on rank) ranged from 51.2-57.1 years old (Rossetter, 2015). It is important to note that this data does not include Diploma, LPN or associate degree (ADN) faculty data and does include graduate faculty data.

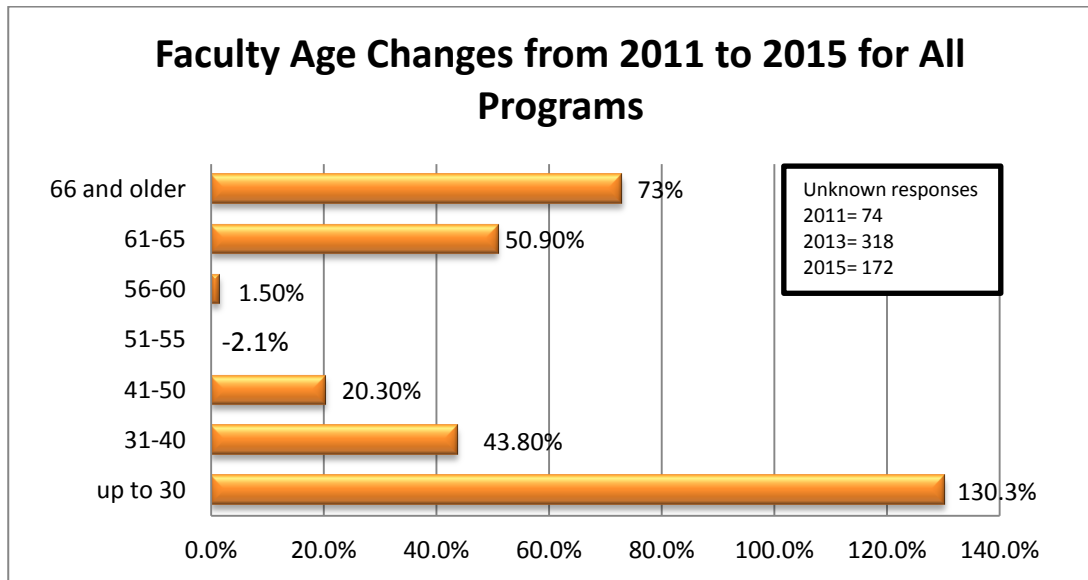
Figure 33



Includes both full-time and part-time faculty

Figure 34 below demonstrates an increase in all faculty age groups from 2011 to 2015, except for the group 51-55 years which saw a slight (2.1%) decline. The largest increase was in first group, the up to 30 years of age, 72 faculty in 2011 to 167 faculty in 2015. Although this is encouraging, the other large increases were amongst the 66 years and older age group (115 faculty in 2011 to 199 in 2015) and 61-65 year age group (259 faculty in 2011 to 391 faculty in 2015)

Figure 34



Includes both full-time and part-time faculty

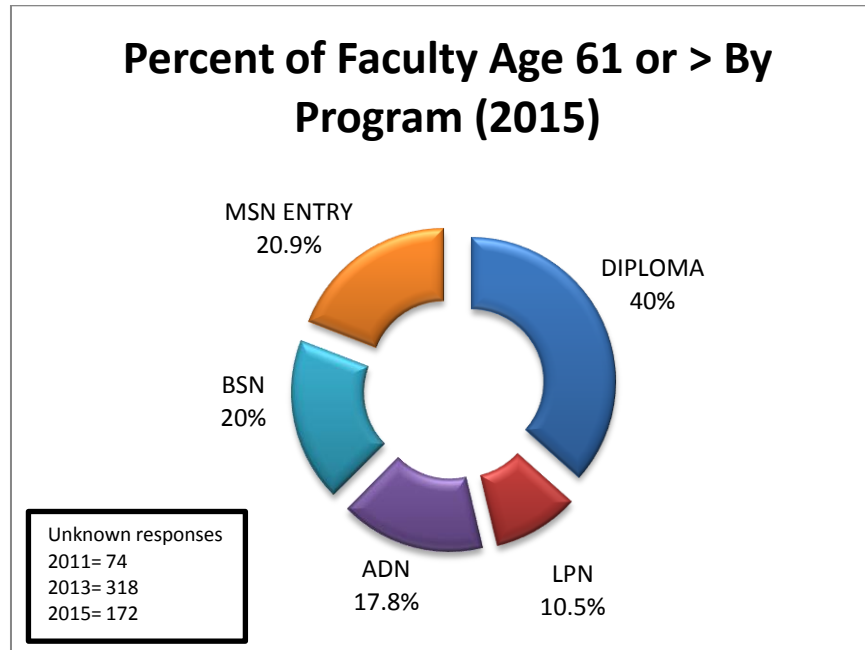
In 2015, 18.6% of pre-licensure nursing faculty was 61 years or older; this was 14.6% in 2011. The hospital diploma program contains the most faculty aged 61 years or older (40%), while all other programs had anywhere from 10.5-20.9% of their faculty in this age group (Figure 35 below). The percentage of full-time pre-licensure faculty in Illinois aged 61 years or older is also higher than national rates (IL 22%; US 20%) (NLN, 2016a). Faculty aged 61 years or older are eligible for retirement and if this occurs without the ability or a plan to replace them, program capacities and student admissions could be negatively impacted (IOM, 2011).

The faculty age distribution from 2011 to 2015 also remained the same amongst all programs, except for in the hospital diploma and MSN Entry programs. In 2011, the largest age group in MSN Entry programs was 56-60 years. However, as of 2015, the largest age group was 31-40 years. A large increase was also experienced in the age group 30 years and younger, 7 faculty in 2011 and 47 faculty in 2015 (+571%); for the group 31-40 years, 47 faculty in 2011 and 96 faculty in 2015, a change of +104.2%.

The largest age group amongst LPN, ADN and BSN program faculty continues to be 41-50 years and the largest increase was in the faculty age groups that may be eligible for retirement. For the LPN programs, the age group with the largest increase (+133%) was in the 66 years and older group, from 6 faculty in 2011 to 14 faculty in 2015. For the BSN programs, the 66 years and older age group also experienced the largest increase (+105.5%), from 54 to 111 faculty from 2011 to 2015. The largest increase in ADN

programs (+56.9%) was in the 61-65 years of age group, a change from 72 faculty in 2011 to 113 faculty in 2015

Figure 35



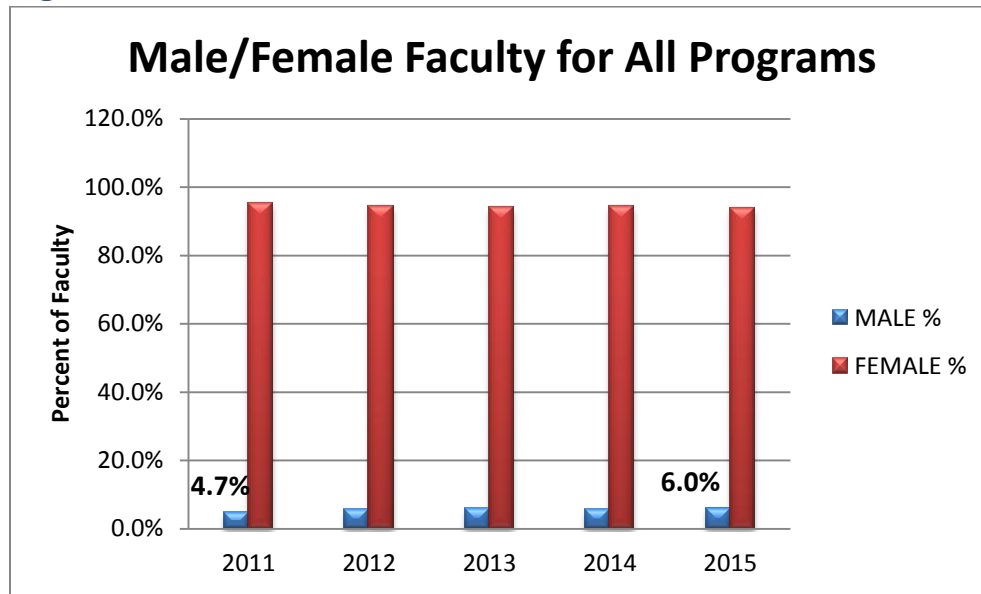
Includes both full-time and part-time faculty; BSN Accelerated program faculty data is included in the BSN Program calculations.

GENDER

Nursing continues to be a predominantly female profession, and nursing faculty demographics also reflect this. The percent of male pre-licensure nursing faculty has increased by 1.3%, from 4.7% in 2011 to 6.0% in 2015 (Figure 36). Nationally, in 2015, 6% of full-time and 8% of part-time pre-licensure faculty were male (NLN, 2016a).

The largest increase (+64.9%) in male pre-licensure nursing faculty employment was in bachelor's degree BSN programs, 57 faculty in 2011 to 94 faculty in 2015. In 2015, master's degree MSN Entry programs employed the most male faculty (8.2%). The male faculty employment rate in the one Diploma program was unchanged for 2015 while the other program percentage rates of faculty who are male was as follows: LPN programs: 7.8%, BSN programs: 5.7%, and ADN programs: 4.3%.

Figure 36



Includes both full-time and part-time faculty

ACADEMIC CREDENTIALS

The Illinois Department of Financial and Professional Regulation Board of Nursing sets the standard for academic credentials required for pre-licensure nursing education program faculty. In Illinois, the minimum requirement to teach in an LPN program is a baccalaureate degree with a major in nursing.¹ For all other pre-licensure nursing education programs, the minimum requirement is a master's degree with a major in nursing.

Figure 37 presents the highest degree held among all pre-licensure nursing faculty in Illinois in 2011 and in 2015. The most common degree continues to be the Master's Degree in Nursing (MSN), with 72% of all pre-licensure faculty in Illinois holding this as their highest-earned degree in 2015. The percentage of full-time pre-licensure faculty that held either a baccalaureate or MSN degree in Illinois in 2015 was less than national figures, but higher than national figures for the doctoral degree (IL-35.4%; US-33%) (NLN, 2016c).

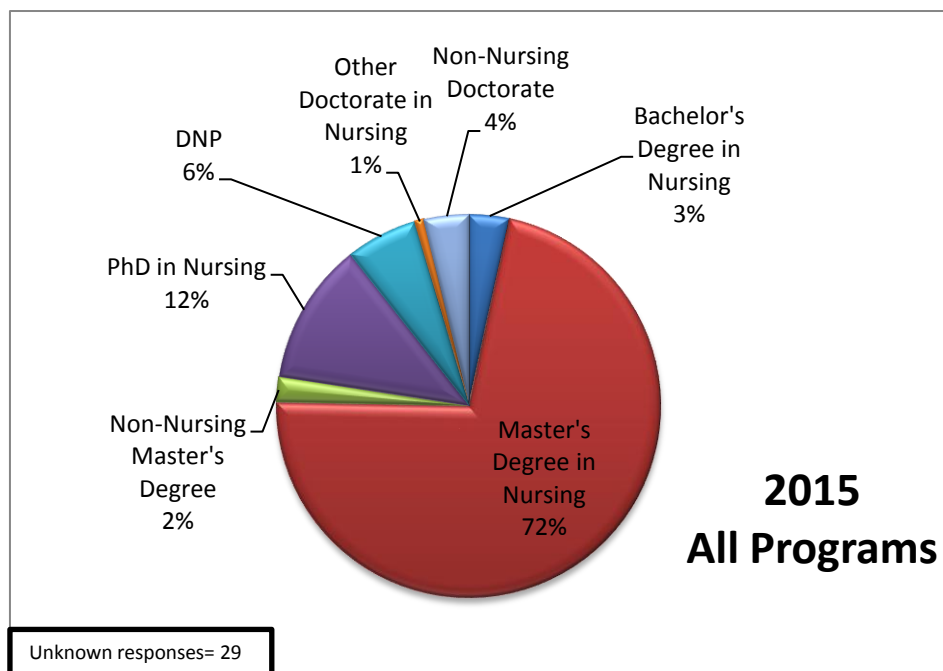
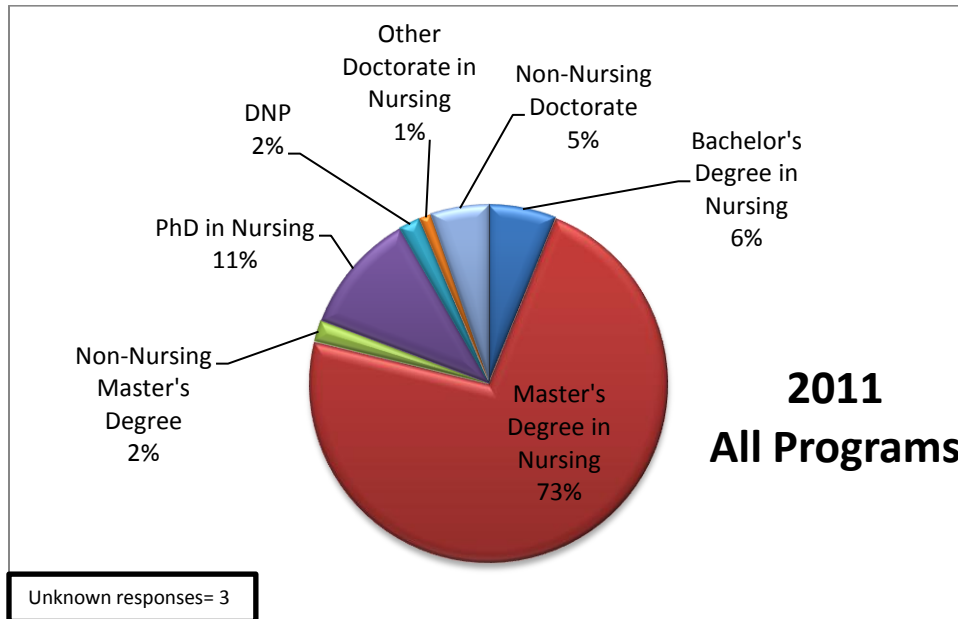
Between 2011 and 2015, there was an increase (19.2% to 22.5%) in the number of pre-licensure nursing faculty with a doctoral degree and a decrease (6% to 3%) in the number of nursing faculty with a bachelor's degree as their highest-earned degree (Figure 38). According to the National League for Nursing (NLN) (2013), "...doctorally prepared

¹ IDFPR Illinois Nurse Practice Act, (RN) Section 1300.340, g) Nursing Administrator and Faculty, 5) Nurse faculty of a program shall have: A) at least 2 years experience in clinical nursing practice; and B) a master's degree or higher with a major in nursing.

IDFPR Illinois Nurse Practice Act, (LPN) Section 1300.230, g) 5): Nurse faculty of a program shall have: A) at least 2 years experience in clinical nursing practice; and B) a master's degree or higher with a major in nursing.

educators are needed to respond to national directives for leading curriculum change, developing models of cost effective education, and preparing a workforce to meet the needs of a reformed health care system, both nationally and globally” (p. 1). This same sentiment was echoed by the IOM (2011) in their report, *The Future of Nursing: Leading Change, Advancing Health*. In fact, the Institute of Medicine (IOM) (2011) has set the goal of doubling the number of doctorally prepared faculty by 2020.

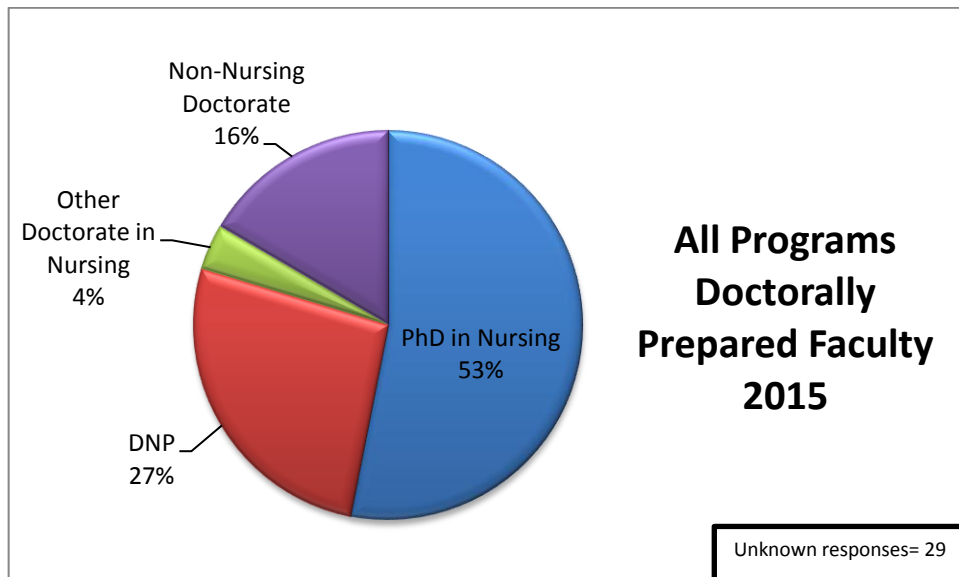
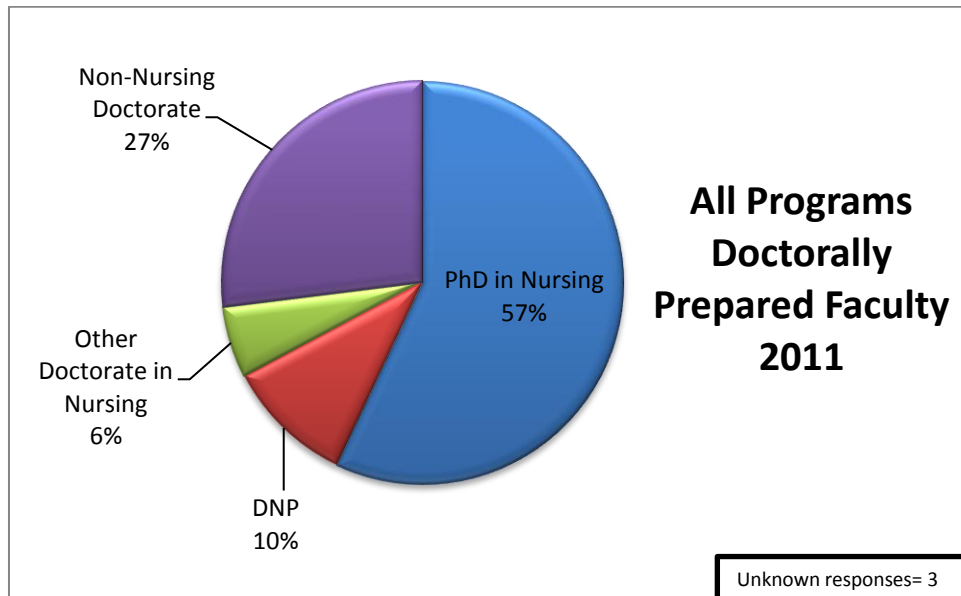
Figure 37



Includes both full-time and part-time faculty

Figure 38 below shows the types doctoral degrees held by Illinois nursing faculty. Among faculty who held a doctoral degree in 2011, the majority had a PhD in nursing (57%), followed by the non-nursing Doctorate (27%) and the Doctor of Nursing Practice (DNP) degree (6%) (Figure 38). In 2015, the PhD in Nursing still remained the predominant degree (53%), while the percent of faculty with a non-nursing Doctorate fell by almost 40%, from 27% to 16% in 2015. However, the number of faculty with a DNP degree increased by 350% from 10% to 27% from 2011 to 2015.

Figure 38

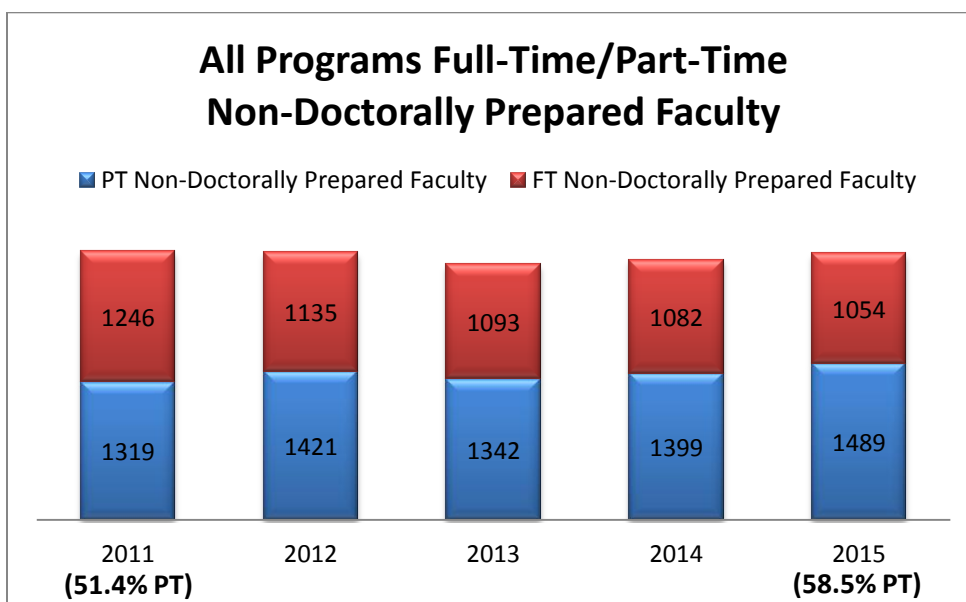
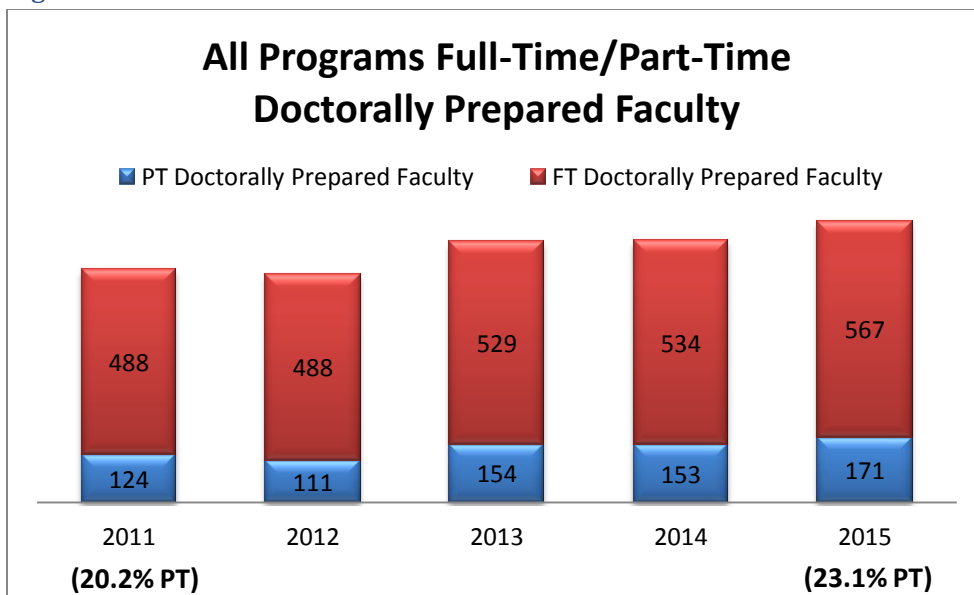


Includes both full-time and part-time faculty

Pre-licensure nursing faculty with a doctoral degree continue to be employed full-time more so than faculty with either a masters or a bachelor's degree. In 2015, 76.9% of doctorally prepared pre-licensure faculty were employed full-time, while 41.5% of pre-licensure faculty without a doctoral degree was employed full-time (Figure 39).

The MSN Entry programs maintain the highest percentage of faculty with a doctoral degree (45.2% in 2015) with a 5.3% increase since 2011. BSN programs maintain the second largest percentage of nursing faculty with a doctoral degree (26.3% in 2015), but this number is essentially unchanged since 2011. The same is true for the Diploma program as well, but the number of doctorally prepared faculty in LPN programs has increased by 2.5%.

Figure 39



Summary

A key component in meeting nursing workforce supply is Illinois' ability to produce new nurses through the pre-licensure nursing education system. To evaluate this system, it is important to examine the type, demand and outcomes of the programs provided, in addition to student and faculty characteristics, which was the intent of this report.

Analysis of the past five years of data collected with the IDFPR Board of Nursing annual mandatory survey presents several positive trends among Illinois' pre-licensure nursing programs. There has been growth in number of programs available, as well as in enrollment, capacity, number of applicants and graduates. This growth aligns with the *Illinois Board of Higher Education (IBHE) Report of the Higher Education Commission on the Future of the Workforce's* goal of 60% of the adult population in Illinois obtaining a high-quality post-secondary credential or degree by 2025. The report also concurs with the Institute of Medicine (IOM) (2011) recommendation to increase the proportion of nurses with a BSN to 80% by 2020.

The pass rate for first-time test takers for the national nursing license exam for both the NCLEX-RN® and NCLEX-PN® exam has either met or exceeded the national average. Both of these achievements illustrate how successful the various types of pre-licensure programs in Illinois have been in growth while still maintaining a high-quality educational experience.

The growth in the number doctorally prepared nursing faculty is supportive of the IOM (2011) recommendation of doubling the number of doctorally prepared faculty by 2020, as well as the National League for Nursing's (2013) support of utilizing more doctorally prepared nurse educators. This increase in the number of doctorally prepared nursing faculty supports the ability to educate more nursing faculty who, according to the Illinois Board of Nursing must have at least a master's degree in nursing to teach in the RN bachelor's degree and master's entry programs.

There has been an increase in the ethnic, racial and gender diversity among both faculty and students, efforts continue as increased diversity has been shown to improve health care access, patient satisfaction, student attrition and graduation rates. The doubling of faculty vacancy rates from 2011-2015, suggests that continued encouragement of more nurses to pursue a career in nursing education is needed, as one-fifth of current pre-licensure nursing faculty in Illinois are eligible for retirement. There are multiple entry points into nursing education, opportunities for nurses to continue their education to better meet the health care needs of populations in the state. An adequate supply of nursing faculty impacts nursing programs' capacity and admission capabilities, as well as the number of nurses being produced annually to care for the citizens of Illinois.

References

- American Association of Colleges of Nursing. (October 2015). *Policy brief-Nursing faculty: A spotlight on diversity*. Retrieved from <http://www.aacn.nche.edu/government-affairs/Diversity-Spotlight.pdf>
- Colorado Center for Nursing Excellence. (April 2012). *Colorado's nursing faculty shortage: What it is and why you should care*. Retrieved from <http://www.aacn.nche.edu/media-relations/nursing-shortage-resources/CO-Nursing-Faculty-Shortage.pdf>
- Committee on the Robert Wood Johnson Foundation Initiative on the Future of Nursing, at the Institute of Medicine; Institute of Medicine. (2011). *The future of nursing: Leading change, advancing health*. Retrieved from <http://www.iom.edu/Reports/2010/The-future-of-nursing-leading-change-advancing-health.aspx>
- Fang, D., Li, Y., Stauffer, D. C., Trautman, D.E. (2016). *2015-2016 Enrollment and graduations in Baccalaureate and graduate programs in nursing*. Washington, DC: American Association of Colleges of Nursing.
- Illinois Department of Financial and Professional Regulation (IDFPR). (2014). *Registered nurse workforce survey 2014*. Retrieved from http://nursing.illinois.gov/PDF/2015-05-04_icn_rnws2014_report.pdf
- LaVeist, T. A., & Pierre, G. (2014). Integrating the 3Ds: Social determinants, health disparities, and health-care workforce diversity. *Public Health Reports, 129*(1), 9–14. Retrieved from <http://phr.sagepub.com/>
- Li, Y., & Fang, D.; American Association of Colleges of Nursing. (2015). *Special survey on vacant faculty positions for academic year 2014-2015*. Retrieved from <http://www.aacn.nche.edu/leading-initiatives/research-data/vacancy14.pdf>
- National Advisory Council on Nurse Education and Practice. (2013). *Achieving health equity through nursing workforce diversity*. Retrieved from <http://www.hrsa.gov/advisorycommittees/bhpradvisory/nacnep/Reports/elevantreport.pdf>
- National Council of State Boards of Nursing. (January 13, 2012). *2011 NCLEX pass rates*. Retrieved from https://www.ncsbn.org/Table_of_Pass_Rates_2011.pdf
- National Council of State Boards of Nursing. (February 1, 2013). *2012 NCLEX pass rates*. Retrieved from https://www.ncsbn.org/Table_of_Pass_Rates_2012.pdf
- National Council of State Boards of Nursing. (January 21, 2014). *2013 NCLEX pass rates*. Retrieved from https://www.ncsbn.org/Table_of_Pass_Rates_2013.pdf
- National Council of State Boards of Nursing. (January 21, 2015). *2014 NCLEX pass rates*. Retrieved from https://www.ncsbn.org/Table_of_Pass_Rates_2014.pdf
- National Council of State Boards of Nursing. (January 21, 2016). *2015 NCLEX pass rates*. Retrieved from https://www.ncsbn.org/Table_of_Pass_Rates_2015.pdf
- National Forum of State Nursing Workforce Centers. (2009). *National nursing workforce minimum datasets: Education*. Retrieved from <http://www.nursingworkforcecenters.org/minimum-dataset-surveys/>
- National League for Nursing. (November 2013). *A vision for doctoral preparation for nurse educators: A living document from the National League for Nursing*. Retrieved from

- http://www.nln.org/docs/default-source/about/nln-vision-series-%28position-statements%29/nlnvision_6.pdf
- National League for Nursing. (2014a). *Nursing student demographics: Percentage change in the number of basic RN programs, total and by program type: 2006 to 2012, and 2014*. Retrieved from [http://www.nln.org/docs/default-source/newsroom/nursing-education-statistics/percentage-change-in-the-number-of-basic-rn-programs-total-and-by-program-type-2006-to-2014-\(pdf\).pdf?sfvrsn=2](http://www.nln.org/docs/default-source/newsroom/nursing-education-statistics/percentage-change-in-the-number-of-basic-rn-programs-total-and-by-program-type-2006-to-2014-(pdf).pdf?sfvrsn=2)
- National League for Nursing. (2014b). *Nursing student demographics: Percentage of minorities enrolled in basic RN programs by Race-Ethnicity 1995, 2003 to 2005, and 2009 to 2014*. Retrieved from <http://www.nln.org/docs/default-source/newsroom/nursing-education-statistics/percentage-of-minorities-enrolled-in-basic-rn-programs-by-race-ethnicity-1995-2003-to-2005-and-2009-to-2014-%28pdf%29.pdf?sfvrsn=0>
- National League for Nursing. (2014c). *Nursing student demographics: Percentage of minority students enrolled in basic RN programs: 1995, 2003 to 2005, 2009 to 2012, and 2014*. Retrieved from <http://www.nln.org/docs/default-source/newsroom/nursing-education-statistics/percentage-of-minority-students-enrolled-in-basic-rn-programs-1995-2003-to-2005-2009-to-2012-and-2014-%28pdf%299b64bd5c78366c709642ff00005f0421.pdf?sfvrsn=0>
- National League for Nursing. (2014d). *Nursing student demographics: Percentage of students enrolled in nursing programs who are male by program type, 2014*. Retrieved from <http://www.nln.org/docs/default-source/newsroom/nursing-education-statistics/percentage-of-students-enrolled-in-nursing-programs-who-are-male-by-program-type-2014.pdf?sfvrsn=0>
- National League for Nursing. (2014e). *Nursing student demographics: Percentage of students enrolled in pre-licensure RN programs by sex, 2014*. Retrieved from <http://www.nln.org/docs/default-source/newsroom/nursing-education-statistics/percentage-of-students-enrolled-in-pre-licensure-rn-programs-by-sex-2014.pdf?sfvrsn=0>
- National League for Nursing. (2014f). *Nursing student demographics: Percentage of students over age 30 by program type, 2014*. Retrieved from <http://www.nln.org/docs/default-source/newsroom/nursing-education-statistics/percentage-of-students-over-age-30-by-program-type-2014.pdf?sfvrsn=0>
- National League for Nursing. (2015). *Findings from the 2014 NLN biennial survey of schools of nursing academic year 2013-2014 executive summary*. Retrieved from <http://www.nln.org/docs/default-source/newsroom/nursing-education-statistics/2014-survey-of-schools---executive-summary.pdf?sfvrsn=2>
- National League for Nursing. (2016a). *NLN faculty census survey of schools of nursing academic year 2014-2015: Executive summary*. Retrieved from [http://www.nln.org/docs/default-source/newsroom/nursing-education-statistics/executive-summary-faculty-census-survey-2014-2015-\(pdf\).pdf?sfvrsn=0](http://www.nln.org/docs/default-source/newsroom/nursing-education-statistics/executive-summary-faculty-census-survey-2014-2015-(pdf).pdf?sfvrsn=0)
- National League for Nursing. (2016b). *Percentage of nursing programs that sought to hire new faculty, 2015*. Retrieved from [http://www.nln.org/docs/default-source/newsroom/nursing-education-statistics/percentage-of-nursing-education-programs-that-sought-to-hire-new-faculty-2015-\(pdf\).pdf?sfvrsn=0](http://www.nln.org/docs/default-source/newsroom/nursing-education-statistics/percentage-of-nursing-education-programs-that-sought-to-hire-new-faculty-2015-(pdf).pdf?sfvrsn=0)
- National League for Nursing. (2016c). *Highest earned credential of full-time nurse*

- educators by rank, 2015*. Retrieved from <http://www.nln.org/docs/default-source/stats-on-nursing-programs/highest-earned-credential-of-full-time-nurse-educators-by-rank-2015.pdf?sfvrsn=0>
- Rossetter, R. J.; American Association of Colleges of Nursing. (2015, March 16). *Nursing faculty shortage fact sheet*. <http://www.aacn.nche.edu/media-relations/FacultyShortageFS.pdf>
- United States Bureau of Labor Statistics. (2016, April 18). *Employment change, replacement needs, and job openings projected 2014–2024*. Retrieved on August 7, 2016 from http://www.bls.gov/emp/ep_table_110.htm
- United States Census Bureau. (2015, July 1). *Quick facts Illinois: Race and Hispanic origin*. Retrieved on July 9, 2016 from <http://www.census.gov/quickfacts/table/RHI125215/17#headnote-js-b>
- United States Department of Health and Human Services; Health Resources and Services Administration (2014). *The future of the nursing workforce: National- and state-level projections, 2012-2025*. Retrieved from <http://bhw.hrsa.gov/healthworkforce/supplydemand/nursing/workforceprojections/nursingprojections.pdf>

Appendix A

STUDENT DATA

	Number of Nursing Seats Available	Number of Qualified Applicants	Number of Students Formally Admitted	Number of Students Who Left the Program After First Clinical	Number of students graduated
FY					

Student Gender	Female	Male	Missing Data
	# Full Time		
# Part Time			

Student Age	17-20	21-25	26-30	31-40	41-50	51-55	56-60	61 / older	Unknown
	# Full Time								
# Part Time									

Student Race/Ethnicity	American Indian	Alaska Native	Asian	Black / African American	Native Hawaiian	Other Pacific Islander	White / Caucasian	Hispanic / Latino	Missing / Unknown
	# Full Time								
# Part Time									

FACULTY DATA

Total number of Full-Time Faculty	Total number of Part-Time Faculty	Number of Budgeted Faculty Full-Time	Number of Budgeted Faculty Part-Time	Number of Vacant Faculty Positions	Do you have a faculty variance? Yes / No	If yes, what is the graduation date of the faculty on the variance?

<i>Highest Degree Held by Faculty</i>	Masters Degree in Nursing	Non-nursing Masters Degree	PhD in Nursing	Doctorate of Nursing Practice (DNP)	Other Doctorate in Nursing	Non-nursing doctorate	Unknown
# Full Time							
# Part Time							

<i>Faculty Gender</i>	Female	Male	Missing Data
# Full Time			
# Part Time			

<i>Faculty Age</i>	30 or younger	31-40	41-50	51-55	56-60	61-65	66 / older	Unknown
# Full Time								
# Part Time								

<i>Faculty Race/Ethnicity</i>	American Indian	Alaska Native	Asian	Black / African American	Native Hawaiian	Other Pacific Islander	White / Caucasian	Hispanic / Latino	Missing / Unknown
# Full Time									
# Part Time									