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## Survey of Nursing Education Programs: *2012–2013 School Year*

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## EXECUTIVE SUMMARY

In the spring of 2014, the Michigan Center for Nursing conducted a survey of nursing education programs in Michigan to collect information on the types of programs offered, their enrollment capacity, the number of graduates, student and faculty demographics, and current issues affecting program capacity. Survey recipients were asked for data on all nursing education programs offered by their institution during the 2012–2013 school year. Out of 56 institutions with fully operational nursing education programs, 53 submitted complete or partially complete surveys (a 95 percent response rate) by the close of the survey in early September 2014.

Key findings show:

- There are fewer nursing education programs available now than there were in 2010, with the largest drop occurring in the number of licensed practical nurse (LPN) programs.
- In 2012–2013, there were six nursing education programs being developed or expanded, compared to four programs being developed or expanded in 2009–2010.
- Most programs report more qualified applicants than the number of seats available for new students, yet several programs did not admit enough applicants to fill their available seats.
- Comparing the estimated number of graduates during 2012–13 to the number reported in 2009–10 shows a *decrease* in LPN and associate’s degree in nursing (ADN) graduates, and *increases* in bachelor of science in nursing (BSN) graduates and graduates with advanced degrees.
- Almost 25 percent (565) of BSN graduates during 2012–2013 were already licensed as registered nurses (RNs).

Estimated number of graduates for the 2012–2013 school year are as follows:

<b>992</b> LPNs	<b>2,700</b> ADNs	<b>2,634</b> BSNs	<b>391</b> MSNs	<b>29</b> PhDs	<b>70</b> DNPs
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The capacity of nursing education programs to accept students is determined by the availability of faculty, facilities, and clinical placement opportunities. Survey findings related to Michigan nursing program faculty show:

- About half of all education institutions responding to the survey indicated difficulty filling full- and part-time faculty positions.
- The overall vacancy rate for full-time faculty positions in nursing education programs is 7 percent (57 out of 802 positions) and the vacancy rate for part-time faculty positions is also 7 percent (102 out of 1,433 positions).
- The specialty areas in which institutions have the most difficulty recruiting faculty are the same areas in which they have the most difficulty finding clinical placements: obstetrics, pediatrics, and mental health/psychiatry.
- Lack of enough sites for clinical placements was reported as a problem by almost half of all the nursing programs represented in the survey.
- The vast majority of prelicensure nursing education programs offer simulation labs as part of the program, but 75 percent of these have difficulty staffing their simulation labs.
- 56 percent of full-time faculty and 47 percent of part-time faculty hold a master’s degree in nursing as their highest academic degree.
- About 19 percent of full-time faculty and almost 2 percent of part-time faculty hold a PhD in nursing.
- 42 percent of full-time faculty are aged 56 or older.
- About 22 percent of full-time faculty are expected to retire in the next five years.

## INTRODUCTION

In the spring of 2014, the Michigan Center for Nursing (MCN) conducted a survey of all nursing education programs in Michigan to collect information on accreditation, the types of programs offered, their enrollment capacity, the number of graduates, demographic information on students and faculty, and current issues affecting program capacity. The survey results presented in this report, along with data from past surveys, provide information for analyzing trends in enrollment, graduation, and program capacity that have an impact on the nurse workforce in Michigan.

## METHODOLOGY

The MCN contracted with Public Sector Consultants Inc. (PSC) for development, implementation, and analysis of the survey of nursing education programs. The survey instrument was designed in collaboration with the MCN and the Michigan Department of Community Health's Office of Nursing Policy.

In April 2014, a survey worksheet was mailed to 59 education institutions believed to be offering nursing education programs in Michigan during the 2012–2013 academic year. Two institutions did not have data to share because their nursing program was new or under development. One institution had closed since the last time schools were surveyed.

Respondents were asked to complete the survey online. Institutions were given the option to provide a copy of their American Association of Colleges of Nursing (AACN) annual survey completed in the fall of 2013, or their report to the Michigan Board of Nursing covering the same time period. For institutions that chose one of these options, PSC incorporated data from these sources into the Michigan survey data, thereby reducing the amount of information respondents needed to enter. Follow-up phone calls, letters, facsimiles, and e-mail notices were used to prompt response to the survey and obtain clarification on survey responses.

Out of 56 institutions with fully operational nursing education programs, 53 submitted complete or partially complete surveys (a 95 percent response rate) by the close of the survey in early September 2014. Institutions with multiple campuses could choose to submit one survey for the institution as a whole or a separate response for each campus; a total of 60 separate survey responses were received from the 53 participating institutions.

Survey recipients were asked to complete the survey with information for all nursing education programs offered by the parent institution during the 2012–2013 school year. There are 114 programs represented in the survey responses, including four that provided data but are phasing out their program. Some programs did not provide responses for every question. Limitations in availability of data for specific questions are indicated in the data tables.

To permit analysis of trends in the number of graduates and total enrollment in nursing education programs, PSC created estimates for this report using data submitted for 2009–2010 by institutions that did not respond to the survey for 2012–2013. The reported totals for graduates by type of program during the 2012–2013 academic year were adjusted by *adding* the number of new enrollees reported for 2009–2010 by Bay College, Kalamazoo Valley Community College, Michigan State University, and Eastern Michigan University.<sup>1</sup> The adjusted numbers of graduates are based on the assumption that new enrollees in 2009–2010 would approximate the number of graduates in 2012–2013 from programs with missing data. In order to provide a baseline for comparison with total enrollment reported for fall 2013, the

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<sup>1</sup>Bay College, Kalamazoo Valley Community College, and Michigan State University did not submit a survey response. Eastern Michigan University did not provide data on program capacity, graduates, or total enrollment. Lake Michigan College did not provide data on total enrollment.

aggregate numbers for total enrollment reported in the 2009–10 survey have been adjusted so that only enrollment numbers for institutions that provided data for 2013 are included. Thus, the institutions represented in the enrollment numbers for 2013 are the same institutions represented in the adjusted 2009 enrollment numbers, plus any institutions that began offering nursing education programs after 2009.

## ACCREDITATION

Survey respondents were asked to identify accreditation held by the nursing education program from either or both of the national nursing accreditation agencies: the Commission on Collegiate Nursing Education (CCNE) and the Accreditation Commission for Education in Nursing (ACEN) (formerly the National League for Nursing Accrediting Commission). Respondents were able to note current status in an accreditation process and were asked to check all that apply. Twenty-seven percent (16) of survey respondents hold an accreditation by the CCNE, and 30 percent (18) hold an accreditation by the ACEN. One survey respondent noted both CCNE and ACEN accreditation. One respondent noted accreditation with ACEN, with candidacy for CCNE accreditation for an existing BSN and a master’s of science in nursing (MSN) program. Of the 19 survey respondents (32 percent) without accreditation: one noted that they are in the process of obtaining ACEN accreditation; one noted approval by the Michigan Board of Nursing; and another one indicated they planned to file for accreditation in June 2014. Six survey respondents (10 percent) did not provide information on their accreditation status.

## TYPES OF NURSING EDUCATION PROGRAMS

There are a wide variety of nursing certificate or degree programs in Michigan. In the 2012–2013 survey, respondents were asked to report the types of programs being offered, developed or expanded, or being phased out as of 2012–2013 by the parent institution (see Exhibit 1). An education institution may offer one or more types of degree/certificate programs. For example, an institution may offer an LPN certificate program and a separate program for an ADN. Some institutions offer a combined LPN and ADN program. If an institution offers a ladder program (combined LPN and ADN programs), it was asked to provide data for the LPN and ADN programs separately. Five institutions were not able to separate LPN program, faculty, and student data from their ADN combined data. For this report, these institutions have been counted in the generic ADN program category. One institution offers both generic and accelerated ADN programs. (See Attachment A for the survey instrument glossary.)

Some institutions offer a BSN, an MSN with a clinical and/or nonclinical track, and a doctor of nursing practice (DNP) or a doctoral degree in nursing (PhD). One institution was not able to separate MSN-clinical and MSN-nonclinical program, faculty, and student data. This program is counted within the MSN-clinical category throughout this report.

**EXHIBIT 1.** Number of Nursing Programs by Type of Degree/Certificate Offered, 2012–2013 School Year

	Number of programs offered	Being developed or expanded	Phasing out as of 2012–2013
<b>Prelicensure programs</b>			
Practical nurse certificate (LPN/PN)	21	1	3
Associate’s degree in nursing (ADN), generic	33 <sup>a</sup>	0	2 <sup>c</sup>
Associate’s degree in nursing (ADN), accelerated option	1	0	0
Prelicensure bachelor of science in nursing (BSN), generic	18 <sup>b</sup>	2	0

	Number of programs offered	Being developed or expanded	Phasing out as of 2012–2013
<b>Prelicensure programs (cont.)</b>			
Prelicensure bachelor of science in nursing (BSN), second degree	4	2	0
Prelicensure master of science in nursing (MSN)	1	0	0
<b>Postlicensure programs</b>			
Postlicensure bachelor of science in nursing (BSN)	12	1	0
Master of science in nursing (MSN) – clinical tracks (e.g., advanced practice nursing specialties)	6	0	0
Master of science in nursing (MSN) – nonclinical tracks (e.g., nursing education, administration, informatics)	5	0	0
Doctorate in nursing (PhD)	2	0	0
Doctor of nursing practice (DNP)	7	0	0
Other doctoral program	0	0	0

SOURCE: Michigan Center for Nursing Survey of Nursing Education Programs 2012–2013.

<sup>a</sup> Five institutions offering an LPN/ADN ladder program are counted within the ADN, generic category because they were not able to separate data for the LPN and ADN components.

<sup>b</sup> Two institutions offering both a generic BSN and BSN second degree program are counted within the generic BSN category because they were not able to separate data for the generic and second degree programs.

<sup>c</sup> Program-specific information was not provided by one of the ADN programs phasing out as of 2012–2013.

There has been an increase in the number of DNP programs offered (from three in 2005–2006, to five in 2009–2010, to eight in 2012–2013). Six programs were being developed or expanded in 2012–2013 compared to four being developed or expanded the last time schools were surveyed in 2009–2010. Three LPN/PN and two generic ADN programs were being phased out during the 2012–2013 academic year.

### **Distance Learning**

A question was added to the 2012–2013 survey to find out how much of a program’s required coursework was offered through distance learning (e.g., online courses). Postlicensure nursing degree programs report offering more of their required coursework online than prelicensure programs (see Exhibit 2).

**EXHIBIT 2. Percentage of Coursework Offered Online by Type of Program, 2012–2013 School Year**

	None	Less than or equal to 25%	26–50%	51–99%	100%
<b>Prelicensure programs</b>					
Practical nurse certificate (LPN/PN)	94.7%	5.3%	0.0%	0.0%	0.0%
Associate’s degree in nursing (ADN), generic	66.7	23.3	10.0	0.0	0.0
Associate’s degree in nursing (ADN), accelerated option	0.0	0.0	100.0	0.0	0.0
Prelicensure bachelor of science in nursing (BSN), generic	55.6	44.4	0.0	0.0	0.0
Prelicensure bachelor of science in nursing (BSN), second degree	25.0	0.0	75.0	0.0	0.0
Prelicensure master of science in nursing (MSN)	0.0	100.0	0.0	0.0	0.0

	None	Less than or equal to 25%	26–50%	51–99%	100%
<b>Postlicensure programs</b>					
Postlicensure bachelor of science in nursing (BSN)	8.3%	8.3%	0.0%	50.0%	33.3%
Master of science in nursing (MSN) – clinical tracks (e.g., advanced practice nursing specialties)	0.0	40.0	20.0	20.0	20.0
Master of science in nursing (MSN) – nonclinical tracks (e.g., nursing education, administration, informatics)	0.0	0.0	20.0	20.0	60.0
Doctorate in nursing (PhD)	0.0	100.0	0.0	0.0	0.0
Doctor of nursing practice (DNP)	0.0	42.9	0.0	42.9	14.2

NOTE: Percentages within each program type may not equal 100 percent due to rounding. The number of programs providing information about online coursework is as follows: 19 out of 21 LPN programs; 29 out of 33 generic ADN programs; one ADN second degree program; 16 out of 18 BSN generic degree programs; four BSN second degree programs; one prelicensure MSN degree program; 12 postlicensure BSN degree programs; five out of six MSN-clinical track degree programs; five MSN-nonclinical track degree programs; two PhD in nursing degree programs; and seven DNP degree programs.

### Use of Simulation Labs

A question was added to the 2012–2013 survey to determine whether institutions offer a simulation lab as part of their nursing program. Questions also were asked about how simulation labs are used and difficulties institutions have staffing their simulation lab. Prelicensure nursing degree programs are more likely to report using simulation labs than postlicensure degree programs (see Exhibit 3).

**EXHIBIT 3.** Use of Simulation Labs, 2012–2013 School Year

	Percent of programs using simulation labs	Type of use among programs using simulation labs			
		Part of a class	Out-of-class assignment	Remediation	Skill check-off
<b>Prelicensure programs</b>					
Practical nurse certificate (LPN/PN)	90.5%	81.0%	4.8%	28.6%	52.4%
Associate's degree in nursing (ADN), generic	90.1	73.3	36.7	40.0	50.0
Associate's degree in nursing (ADN), accelerated option	100.0	100.0	0.0	0.0	0.0
Prelicensure bachelor of science in nursing (BSN), generic	88.9	100.0	37.5	62.5	75.0
Prelicensure bachelor of science in nursing (BSN), second degree	100.0	100.0	0.0	75.0	75.0
Prelicensure master of science in nursing (MSN)	100.0	100.0	0.0	0.0	100.0
<b>Postlicensure programs</b>					
Postlicensure bachelor of science in nursing (BSN)	8.3%	100.0%	100.0%	100.0%	0.0%
Master of science in nursing (MSN) – clinical tracks (e.g., advanced practice nursing specialties)	66.7	75.0	25.0	25.0	75.0

	Percent of programs using simulation labs	Type of use among programs using simulation labs			
		Part of a class	Out-of-class assignment	Remediation	Skill check-off
<b>Postlicensure programs (cont.)</b>					
Master of science in nursing (MSN) – nonclinical tracks (e.g., nursing education, administration, informatics)	0.0%	0.0%	0.0%	0.0%	0.0%
Doctorate in nursing (PhD)	0.0	0.0	0.0	0.0	0.0
Doctor of nursing practice (DNP)	42.9	66.7	0.0	0.0	100.0

NOTE: Percentages for type of use among programs using simulation labs add to more than 100 percent because respondents were asked to mark all that apply. Only one prelicensure MSN degree program and one postlicensure BSN degree program reported using simulation labs. The number of programs providing information about their use of simulation labs is as follows: 19 out of 21 LPN programs; 30 out of 33 generic ADN programs; one ADN second degree program; 16 out of 18 generic BSN programs; 4 BSN second degree programs; 4 out of 6 MSN-clinical track degree programs; and 3 out of 7 DNP programs.

About 75 percent of the survey respondents who use a simulation lab for any of their nursing education programs have difficulty staffing their simulation labs. Respondents noted the following barriers encountered in staffing simulation labs:

- Lack of nursing faculty with training and experience to use a simulation lab, such as specific computer skills for the METIman™ or a master’s degree
- Lack of qualified and experienced nonfaculty staff to use simulation equipment
- Lack of resources to sustain a simulation lab, such as funding, time for nursing faculty to prepare for lab activities, time required for staff to update scenarios, and business knowledge to keep up with equipment and warranties
- Lack of support from the institution’s administration to incorporate or sustain a simulation lab in the nursing program

## PROGRAM CAPACITY, APPLICATIONS, AND ADMISSIONS DURING 2012–2013

Institutions were asked to provide the number of seats for new students, qualified applicants, and admitted applicants for the 2012–13 academic year. The number of seats for new students is defined as the total number of seats available for newly admitted students during that reporting period (2012–2013). Qualified applicants are those who submitted complete applications on time and met all institutional requirements for formal admission to the nursing program during the reporting period. Admitted applicants are those individuals who received official notice from the program that they were invited to begin the nursing program during the reporting period.

### Available Seats

Over a hundred (111) programs provided information on the number of seats available for new students. The reported total number of seats available by program category is shown in Exhibit 4. It is important to note that for several program categories, the *actual* number of seats available is greater than the number shown in the table, since many respondents indicated “unlimited seating” in one or more of their programs.

### Applications and Admissions

The number of qualified applicants is based on the number of *applications* received by each program. (See Exhibit 4.) While some programs reported that they did not have enough qualified applicants in 2012–2013, most report more qualified applicants than the number of seats available for new students.

Many aspiring students apply to more than one institution, though, so the aggregate number of applications received by all programs exaggerates the size of the applicant pool.

The number of admitted applicants is defined as the number of individuals who received official notice from the institution to begin the nursing program during the reporting period. An applicant may be included in the admission numbers for one or more institutions. The result is that the aggregate number of qualified applicants that were *admitted* may be overstated.

#### EXHIBIT 4. Applications and Admissions Compared to Available Seats, Nursing Education Programs, 2012–2013 School Year

	Number of qualified applications received <sup>b</sup>	Number of admitted applicants <sup>b</sup>	Estimated number of seats for new students <sup>c, d</sup>
<b>Prelicensure programs</b>			
Practical nurse certificate (LPN/PN)	1,095	927	1,096
Associate's degree in nursing (ADN), generic <sup>a</sup>	4,728	3,167	2,707
Associate's degree in nursing (ADN), accelerated option	50	50	50
Prelicensure bachelor of science in nursing (BSN), generic	3,774	2,132	1,763
Prelicensure bachelor of science in nursing (BSN), second degree	547	316	364
Prelicensure master of science in nursing (MSN)	51	51	unlimited
<b>Postlicensure programs</b>			
Postlicensure bachelor of science in nursing (BSN)	1,426	1,294	390
Master of science in nursing (MSN) – clinical tracks (e.g., advanced practice nursing specialties)	709	244	280
Master of science in nursing (MSN) – nonclinical tracks (e.g., nursing education, administration, informatics)	74	65	40
Doctorate in nursing (PhD)	24	16	10
Doctor of nursing practice (DNP)	222	217	190

SOURCE: Michigan Center for Nursing Survey of Nursing Education Programs 2012–2013

<sup>a</sup> Five institutions offering an LPN/ADN ladder program are counted within the ADN, generic, category because they were not able to separate data for the LPN and ADN components.

<sup>b</sup> The following institutions did not provide any information on the number of qualified applications and/or admitted applicants: Bay College, Eastern Michigan University, Grand Valley State University, Kalamazoo Valley Community College, Kirtland Community College, and Michigan State University.

<sup>c</sup> Respondents indicated unlimited seating in some LPN, prelicensure MSN, postlicensure BSN, postlicensure MSN, PhD, and DNP programs.

<sup>d</sup> The following institutions did not provide any information on the number of seats for new students: Bay College, Eastern Michigan University, Kalamazoo Valley Community College, Lake Michigan College, and Michigan State University.

Some programs reported admitting *more* students than the number of seats available<sup>2</sup>; however, the survey responses also show that some programs did not admit enough applicants to fill the seats available for new students:

- Seven out of 21 programs did not admit enough applicants to fill the seats they had available for new LPN students.
- Eight out of 33 programs did not admit enough applicants to fill their seats available for new ADN students.

<sup>2</sup> Nursing education programs may request and be granted an exception by the Board of Nursing to fill additional slots above their approved capacity.



- Three out of 18 programs reported they did not admit enough applicants to fill the number of available seats in their prelicensure, generic BSN programs.

Respondents to the survey were not asked why available seats were not filled. Difficulty filling available seats could be related to the immediate capacity of the program (e.g., lack of availability of faculty, facilities, or clinical placement sites to support the approved admission slots), to applicant-related factors (for example, too few qualified applicants, program affordability, enrollment of the applicant in another program), or to a combination of factors. The explanation may also vary among the different education institutions. For example, four LPN programs, three ADN programs, and one prelicensure BSN, generic program report fewer qualified applicants than the number of available seats for each program. Six ADN programs reported more than enough qualified applicants, but they still did not admit enough applicants to fill all of their available seats.

## GRADUATES DURING THE 2012–2013 ACADEMIC YEAR

Survey respondents were asked to provide the number of students who successfully completed their nursing program during the 2012–13 academic year. The *adjusted* total number of graduates from nursing education programs is the sum of the number of graduates reported by institutions that submitted a survey response for 2012–13, plus the number of new enrollees reported in 2009–10 by the institutions that did not submit a survey in 2012–13. (See Exhibit 5.) Comparing the adjusted total number of graduates during 2012–13 to the number of graduates reported in 2009–10 shows a decrease in LPN and ADN graduates, and increases in BSN graduates and graduates from advanced degree programs (i.e., MSN, PhD, and DNP).

**EXHIBIT 5.** Number of Graduates Reported by Nursing Education Programs, by School Year

	2002–03	2005–06	2009–10	2012–13 <sup>b</sup>	Adjusted 2012–13 <sup>c</sup>
LPN graduates	1,094	1,314	1,163	824	992
ADN graduates	1,772	2,165	2,959	2,619	2,700
BSN graduates <sup>a</sup>	1,130	1,277	–	–	–
Prelicensure BSN graduates	–	–	1,972	1,704	2,048
Postlicensure BSN graduates	–	–	423	565	586
MSN graduates	200	242	369	299	391
PhD graduates	16	20	18	27	29
DNP	–	–	25	70	70

SOURCES: Michigan Center for Nursing Survey of Nursing Education Programs 2012–2013; Michigan Center for Nursing Survey of Nursing Education Programs 2005–2006; and Michigan Center for Nursing Survey of Nursing Education Programs 2002–2003.

<sup>a</sup> BSN graduates prior to 2009–2010 include prelicensure BSN students and RNs completing a BSN.

<sup>b</sup> In 2012–2013, the following institutions did not provide any information on the number of graduates: Bay College, Eastern Michigan University, Kalamazoo Valley Community College, Kirtland Community College, and Michigan State University.

<sup>c</sup> The reported totals for graduates by type of program during the 2012–2013 academic year were adjusted by *adding* the number of new enrollees reported for 2009–2010 by Bay College, Kalamazoo Valley Community College, Michigan State University, and Eastern Michigan University. This assumes that these institutions graduated all of the students that were enrolled in 2009–2010, which may overestimate the actual number of graduates from these institutions.

Not all of the graduates shown in Exhibit 5 are new to the practice of nursing. Some of the graduates of ADN programs or BSN programs have been working as licensed practical nurses before receiving their ADN or BSN. Some of the BSN graduates have been working as registered nurses with an ADN before receiving their BSN (i.e., postlicensure BSN students). Respondents submitting complete survey data

show that almost 25 percent (565) of BSN students graduated from Michigan nursing education programs during 2012–2013 were already licensed as RNs.

Survey respondents reported 396 graduates from advanced degree programs during 2012–2013 (299 MSN graduates, 27 PhD graduates, and 70 DNP graduates). These nurses do not add to the number of nurses in the workforce, but they do add to the number of nurses who have the credentials required for nursing program faculty and upper-level positions in health care administration.

## TOTAL STUDENT ENROLLMENT

Survey respondents were asked to provide the total number of students enrolled—all newly enrolled and continuing students at all points in the nursing program curriculum sequence. Respondents reported a total of 13,682 students enrolled in nursing education programs as of the fall 2013 census date (See Exhibit 6).

The total student enrollment numbers reported for 2013 are shown in comparison to enrollment for 2009. To create a comparable baseline, only enrollment numbers for institutions that provided data for 2013 are included in the totals for 2009. Thus, differences between the adjusted 2009 enrollment and reported 2013 enrollment are due to changes in enrollment reported by programs participating in both surveys, enrollment reported by new programs that were not operating in 2009, and/or decreased enrollment due to discontinuation of programs that were operating in 2009.

Among institutions participating in the survey in 2013, total enrollment is higher than it was in 2009 for LPN, generic ADN, postlicensure BSN, prelicensure MSN, and DNP programs. Total enrollment in all other types of programs has decreased since 2009.

**EXHIBIT 6.** Total Student Enrollment<sup>a</sup> reported by Nursing Education Programs, Fall 2009 and 2013

	2009 fall census (adjusted) <sup>b</sup>	2013 fall census <sup>b</sup>
<b>Prelicensure programs</b>		
Practical nurse certificate (LPN/PN)	952	1,042
Associate's degree in nursing (ADN), generic <sup>c</sup>	4,750	4,883
Associate's degree in nursing (ADN), accelerated option	62	33
Prelicensure bachelor of science in nursing (BSN), generic	4,607	4,192
Prelicensure bachelor of science in nursing (BSN), second degree	499	352
Prelicensure master of science in nursing (MSN)	16	35
<b>Postlicensure programs</b>		
Postlicensure bachelor of science in nursing (BSN)	1,600	2,077
Master of science in nursing (MSN) – clinical tracks (e.g., advanced practice nursing specialties)	1,090	510
Master of science in nursing (MSN) – nonclinical tracks (e.g., nursing education, administration, informatics)	210	171
Doctorate in nursing (PhD)	103	63
Doctor of nursing practice (DNP)	208	324

SOURCE: Michigan Center for Nursing Survey of Nursing Education Programs 2012–2013

<sup>a</sup> Total student enrollment is defined as the number of students enrolled on the fall term census date, including students at all points of the program's curriculum sequence, including newly enrolled and continuing students, and students in their final semester or year.

<sup>b</sup> In 2012–2013, the following institutions did not provide any information on the total student enrollment: Bay College, Eastern Michigan University, Kalamazoo Valley Community College, Lake Michigan College, and Michigan State University. Enrollment numbers reported by these institutions for 2009 are not included in the adjusted 2009 fall census numbers.

<sup>c</sup> Five institutions offering an LPN/ADN ladder program are counted within the ADN, generic, category because they were unable to separate data for the LPN and ADN components.

## STUDENT CHARACTERISTICS

Survey respondents were asked to provide demographic information by type of program for students enrolled during the 2012–2013 school year. Some respondents indicated that they do not keep information on the demographic characteristics of their student population. Some institutions that offer ladder programs (i.e., licensed practical nurse [LPN] to associate’s degree in nursing [ADN] programs) indicated that they do not track student information separately for LPN students and ADN students. Similarly, some programs with more than one track (i.e., MSN clinical track and MSN nonclinical track) reported that they do not track student information separately for clinical and nonclinical MSN students. About 88 percent of survey respondents provided complete information on the gender of their students, and 78 percent of the survey respondents provided complete information on race/ethnicity.

The breakdown of students by gender and race/ethnicity is shown in Exhibit 7 for each type of prelicensure nursing education program, based on the data available. The percentage of nursing students who are male has increased slightly. In 2005–2006, males made up about 10 percent of the LPN, ADN, and BSN students; in 2009–2010, males comprised between 12 and 20 percent of prelicensure nursing students; and in 2012–2013, males comprised between 11 and 23 percent of prelicensure nursing students. Accelerated ADN programs have the largest percentages of students who are male. Minority populations tend to be underrepresented in prelicensure nursing education programs, with the exception of LPN programs where 24 percent of students are black or African American.

**EXHIBIT 7.** Demographic Characteristics of Prelicensure Nursing Students, 2012–2013 School Year

	Percentage of Prelicensure Students					
	LPN <sup>a</sup>	ADN generic <sup>b</sup>	ADN accelerated <sup>c</sup>	BSN generic <sup>d</sup>	BSN second degree <sup>e</sup>	Prelicensure MSN <sup>f</sup>
<b>Gender</b>						
Female	89.5%	83.9%	76.7%	86.3%	83.3%	97.1%
Male	10.5	16.1	23.3	13.7	16.7	2.9
<b>Race/Ethnicity</b>						
American Indian/Alaskan Native	0.5%	5.0%	0.0%	0.9%	0.0%	0.0%
Asian	1.3	1.5	0.0	3.2	0.8	14.3
Black/African American	23.6	8.6	0.0	4.0	0.4	17.1
Hispanic/Latino	1.3	2.5	0.0	3.2	0.4	0.0
Native Hawaiian or Other Pacific Islander	0.0	0.3	0.0	0.1	0.0	0.0
White/Caucasian	51.3	68.1	0.0	88.2	8.3	65.7
Unknown	20.7	13.6	100.0	0.1	90.1	0.0
Two or more races	1.2	0.4	0.0	0.3	0.0	2.9

SOURCE: Michigan Center for Nursing Survey of Nursing Education Programs 2012–2013.

NOTE: Several nursing education programs were not able to provide complete data on student gender and race/ethnicity. Percentages within each program category may not add to 100 percent due to rounding.

<sup>a</sup> All of the LPN programs submitted data on student gender and race/ethnicity.

<sup>b</sup> About 94 percent (31 out of 33) survey respondents offering ADN programs submitted data for student gender and race/ethnicity.

<sup>c</sup> The one institution offering an ADN-accelerated program submitted data for student gender, but not race/ethnicity.

<sup>d</sup> All (18) survey respondents offering BSN-generic programs submitted data for student gender and race/ethnicity.

<sup>e</sup> One quarter (one out of four) survey respondents offering BSN-second degree programs submitted data for student gender and race/ethnicity.

<sup>f</sup> The one institution offering a prelicensure MSN degree program submitted data for gender and race/ethnicity.

The breakdown of students by gender and race/ethnicity of postlicensure students is shown in Exhibit 8 for each type of postlicensure nursing education program, based on the data available. A smaller percentage of postlicensure degree students are male than shown in the demographic data for prelicensure

programs (with the exception of the prelicensure MSN program). Minority populations are generally underrepresented in postlicensure programs, although the percentage of students who are black or African American has grown to 11 percent within PhD and DNP programs.

**EXHIBIT 8.** Demographic Characteristics of Postlicensure Nursing Students, 2012–2013 School Year

	Percentage of Postlicensure Students				
	BSN <sup>a</sup>	MSN clinical <sup>b</sup>	MSN nonclinical <sup>c</sup>	PhD <sup>d</sup>	DNP <sup>e</sup>
<b>Gender</b>					
Female	92.7%	89.8%	90.7%	92.6%	88.7%
Male	7.3	10.2	9.3	7.4	11.3
<b>Race/Ethnicity</b>					
American Indian/Alaskan Native	0.3%	0.2%	0.6%	1.9%	0.6%
Asian	3.9	1.6	1.2	1.9	2.0
Black/African American	3.9	7.0	1.2	11.1	11.1
Hispanic/Latino	1.7	1.8	0.6	3.7	1.1
Native Hawaiian or Other Pacific Islander	0.0	0.0	0.6	0.0	0.6
White/Caucasian	85.4	61.6	76.6	74.1	77.5
Unknown	2.5	27.3	19.3	7.4	6.0
Two or more races	2.2	0.5	0.0	0.0	1.1

SOURCE: Michigan Center for Nursing Survey of Nursing Education Programs 2012–2013.

NOTE: A few postlicensure nursing education programs were not able to provide complete data on student gender and race/ethnicity.

<sup>a</sup> All survey respondents offering a postlicensure BSN program submitted data for student gender and race/ethnicity.

<sup>b</sup> Four out of six survey respondents offering MSN-clinical track programs submitted data for student gender and race/ethnicity.

<sup>c</sup> Four out of five survey respondents offering MSN-nonclinical track programs submitted data for student gender and race/ethnicity.

<sup>d</sup> Two survey respondents offering PhD in nursing programs provided data for student gender and race/ethnicity.

<sup>e</sup> Six out of seven survey respondents offering DNP programs provided data for student gender and race/ethnicity.

## FACULTY

Survey respondents were asked to provide the number of full-time faculty positions, the number of full-time positions filled by exception, the number of full-time vacancies, the number of part-time faculty positions, and the number of part-time faculty vacancies. All survey respondents were able to provide data for full-time faculty. Fifty-three out of the 60 survey respondents reported they employ part-time faculty and were able to provide data; six survey respondents do not employ part-time faculty; and one school did not indicate whether or not it has part-time faculty. (See Exhibit 9.) Based on the data provided, the overall vacancy rate for full-time faculty positions in nursing education programs is 7 percent; the vacancy rate for part-time faculty positions is also 7 percent.

Survey respondents also were asked to provide the number of full-time faculty member retirements anticipated over the next five years. The 57 survey respondents who provided this information report that they anticipate about 22 percent (179) of their full-time faculty will retire in the next five years.

**EXHIBIT 9. Number of Faculty and Vacancies in Michigan Nursing Education Programs, 2012–2013 School Year**

	<b>Number</b>
<b>Full-time Faculty</b>	
All nursing program faculty who were employed <b>full-time</b> by the program(s) represented on this survey as of the fall term census date (including positions filled by exception <sup>a</sup> )	802
Full-time faculty positions filled by exception	29
Full-time faculty <b>vacancies</b> (open positions that your program is actively trying to fill)	57
Total number of full-time faculty member retirements anticipated over the next <b>five</b> years	179
<b>Part-time Faculty</b>	
Nursing program faculty who were employed <i>part-time</i> by the program(s) represented on this survey as of the fall term census date (including positions filled by exception)	1,437
<i>Part-time</i> faculty vacancies (open positions that your program is actively trying to fill)	102

SOURCE: Michigan Center for Nursing Survey of Nursing Education Programs 2012–2013.

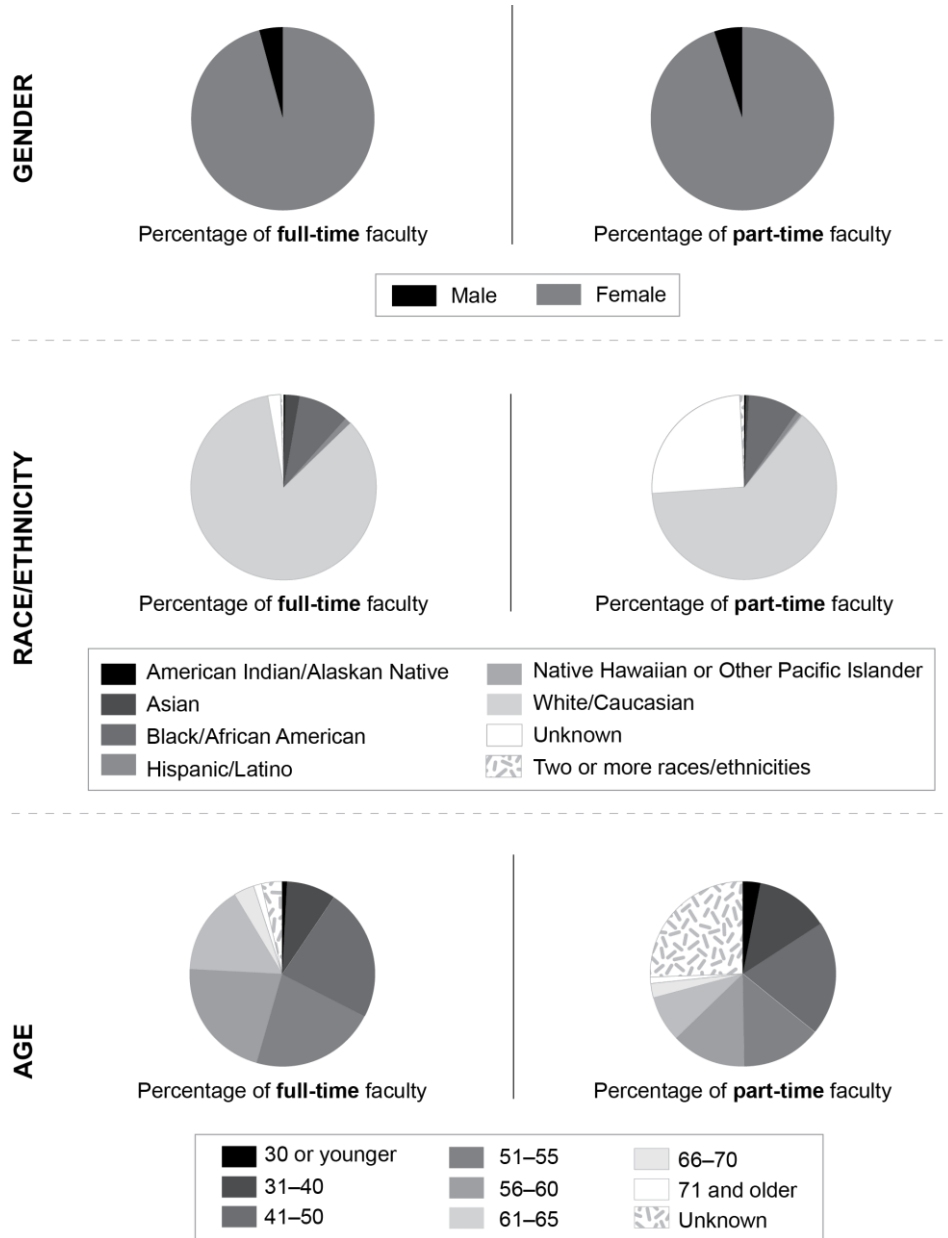
<sup>a</sup> Positions filled by exception are filled by a candidate who currently does not meet state faculty credential requirements for the position but is working toward completion of the required degree, and for whom the school has received Michigan Board of Nursing approval, pending completion of credential requirements.

### ***Demographic Characteristics***

Survey respondents also were asked to provide demographic information on their full-time and part-time faculty. All of the survey respondents provided information on the gender of their full-time faculty; most (58 out of 60 survey respondents) provided complete information on the race/ethnicity and age of their full-time faculty. Almost all of the survey respondents that employ part-time faculty provided information on the gender, race/ethnicity, and age of their part-time faculty. As shown in Exhibit 10:

- About 4 percent of full-time faculty and 5 percent of part-time faculty are male.
- About 84 percent of full-time faculty and 63 percent of part-time faculty are white.
- Almost 9 percent of full-time faculty and 12 percent of part-time faculty are African American.
- About 2 percent of full-time faculty and 1 percent of part-time faculty are Asian.
- About 1 percent of both full-time and part-time faculty are Hispanic/Latino.
- 42 percent of full-time faculty are age 56 or older.

**EXHIBIT 10.** Demographic Characteristics of Faculty (Gender<sup>a</sup>, Race/Ethnicity<sup>b</sup>, and Age<sup>c</sup>), 2012–2013 School Year



SOURCE: Michigan Center for Nursing Survey of Nursing Education Programs 2012–2013.

NOTE: Percentages may not equal 100 due to rounding.

<sup>a</sup> All survey respondents provided data for gender of full-time faculty, and 51 of the 53 survey respondents that have part-time faculty provided data for gender of part-time faculty.

<sup>b</sup> 58 out of 60 survey respondents provided data for race/ethnicity of full-time faculty; 48 out of the 53 survey respondents that employ part-time faculty provided data for race/ethnicity of part-time faculty.

<sup>c</sup> 58 out of 60 survey respondents provided data for age of full-time faculty; 43 out of the 53 survey respondents that employ part-time faculty provided data for age of part-time faculty.

## Academic Degrees

Institutions were asked to indicate the highest academic degree held by faculty members. The survey data show full-time faculty are more likely to hold higher academic degrees than part-time faculty. Compared to 47 percent of part-time faculty, 56 percent of full-time faculty hold a master's degree in nursing as their highest degree. Almost one out of five (19 percent) full-time faculty members hold a PhD in nursing, compared to 2 percent of part-time faculty.

**EXHIBIT 11. Highest Academic Degree Held by Faculty, 2012–2013 School Year**

<b>Degree</b>	<b>Full-time faculty</b>	<b>Part-time faculty</b>
Baccalaureate degree in nursing	3.6%	39.2%
Non-nursing baccalaureate degree	0.1	0.6
Master's degree in nursing	56.0	46.6
Non-nursing master's degree	2.6	1.8
PhD in nursing	19.1	1.9
Doctorate of nursing practice	9.0	1.0
Other doctorate in nursing	0.4	0.1
Non-nursing doctorate	4.9	0.6
Unknown	0.2	8.3

SOURCE: *Michigan Center for Nursing Survey of Nursing Education Programs 2012–2013.*

NOTE: Percentages equal more than 100 percent due to rounding. 58 of 60 survey respondents provided the highest academic degree held by their full-time faculty members; 49 of the 53 survey respondents that employ part-time faculty members provided the information for their part-time faculty. One institution reported that two part-time faculty, by exception, hold an Associate's Degree in Nursing as their highest degree.

## Education Setting

Survey respondents were asked to report the number of faculty in various education settings—clinical, didactic (classroom), both clinical and didactic settings, or administrative (not in a teaching position). Two-thirds of full-time faculty work in both clinical and didactic settings; the vast majority of part-time faculty (86 percent) work in a clinical setting only (see Exhibit 12).

**EXHIBIT 12. Education Setting of Faculty, 2012–2013 School Year**

<b>Education setting</b>	<b>Full-time faculty</b>	<b>Part-time faculty</b>
Clinical setting only	6.5%	86.3%
Didactic setting only	21.4	8.0
Both settings (clinical and didactic)	66.1	5.1
Not in a teaching position	2.2	0.6

SOURCE: *Michigan Center for Nursing Survey of Nursing Education Programs 2012–2013.*

NOTE: Six of the 53 survey respondents who have part-time faculty provided incomplete information on the education setting of part-time faculty.

## ISSUES AFFECTING PROGRAM CAPACITY

Survey respondents were asked about specific issues that may affect program capacity: difficulty filling budgeted faculty positions; lack of enough sites for clinical placements; and difficulty recruiting preceptors for clinical placements. Responses are summarized below:

- 28 out of 60 survey respondents have difficulty filling budgeted, **full-time** faculty positions in particular specialty areas.
- 31 out of 60 survey respondents have difficulty filling budgeted, **part-time** faculty positions in particular specialty areas.
- 54 out of 114 programs represented in the survey responses do not have enough **sites for clinical placements** for nursing students.
- 33 out of 114 programs indicated they had difficulty recruiting **preceptors for clinical placements**.

### ***Difficulty Filling Full-time Faculty Positions***

For full-time faculty positions, the specialty areas that respondents mentioned most often as difficult to fill are mental health/psychiatry (14), pediatrics (9), and obstetrics (6). Other areas that a few survey respondents reported as difficult to fill are community health, maternal/child health, medical-surgical, midwifery, nursing fundamentals, and acute care.

The major barrier reported by almost all (26 out of 28) of the survey respondents experiencing difficulty filling full-time positions is a limited pool of applicants meeting credential requirements. Other reported barriers are salaries that are not sufficient to attract qualified applicants (20); and difficulties recruiting faculty with the right specialty mix (13); and difficulties recruiting faculty to conduct research (3), or to teach clinical courses (2).

### ***Difficulty Filling Part-time Faculty Positions***

The specialty areas mentioned most often as difficult to fill by survey respondents experiencing difficulty filling part-time positions are the same as the problem areas for full-time faculty recruitment: mental health/psychiatry (13), pediatrics (13), and obstetrics (9). Other areas for which a few respondents indicated difficulty filling part-time faculty positions are medical-surgical, community health, family health, geriatrics, and pharmacology.

The major barrier reported by about three-fourths of these survey respondents (24 out of 31) is a limited pool of applicants meeting credential requirements. Other reported barriers are difficulties recruiting faculty with the right specialty mix (20), salaries that are not sufficient to attract qualified applicants (18), and difficulties recruiting faculty to teach clinical courses (12). One respondent commented that part of the problem is that potential candidates for part-time positions already have a full-time job with benefits. Another said there is too much competition for clinical faculty.

### ***Lack of Clinical Placement Sites***

Lack of enough sites for clinical placements was reported as a problem by almost half of all the nursing programs represented in the survey. These nursing programs mentioned pediatrics (23), obstetrics (17), psychiatry/mental health (7), primary care (4), medical/surgical or acute care (3), gerontology (1) and community health (1) as the specific areas in which they are having difficulty finding clinical placements for their students.

Competition for clinical placement sites plagues all types of nursing education programs—practical nurse, associate's, bachelor's, master's, and doctoral. Some respondents for practical nurse programs commented that their programs are competing with associate degree programs for available sites, and



many hospitals are not accepting practical nurse students. One respondent suggested the pressure for clinical placement sites could be reduced by changing the curriculum requirements for practical nurses:

“Local hospitals here are not hiring PNs and therefore will not allow them placement in hospitals, leaving few if any opportunities for [pediatric and obstetric clinical experience], especially when BSN and ADN programs are also challenged for sites. This means the BSN/ADN students are pushed to use additional clinic and community sites, which makes the opportunities for clinical experience for PNs even more remote and difficult to find. This burden could be eased by removing the requirement for PN curriculum to contain peds/ob clinical and increase the amount of simulation use.”

Associate’s degree program respondents also lamented that the competition for clinical placement sites is increasing: “There are so many students and not enough clinical space!” More than one respondent noted changes in health care that are affecting the availability of clinical placement slots—such as the closure of obstetrics and mental health units; smaller pediatric units; lower hospital census and more outpatient services; and newer hospital facilities designed with more efficient, reduced square footage, which limits the physical space available for students.

Bachelor’s degree program respondents echoed the same concern about competition with other schools for clinical placement sites. One respondent commented that it is particularly difficult to find sites for students in the geographic area in which they live. Master’s and doctoral degree programs are not immune from the challenge of securing clinical placement opportunities. A respondent from one school with both a master’s and a doctoral program remarked: “We are not only competing with other nursing programs for clinical placements for our students, but also with physician and physician assistant programs.”

### ***Difficulty Recruiting Preceptors for Clinical Placements***

Difficulty recruiting preceptors for clinical placements was reported as a problem by more than a quarter of all the nursing programs represented in the survey. Again, they noted competition with other schools that also are trying to recruit preceptors, including schools from outside Michigan. A few said it is difficult to find preceptors with the necessary qualifications, such as preceptors with BSN or MSN degrees, or practicing clinical nurse leaders.

# Attachment A:

## *Glossary*<sup>3</sup>

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**Admitted Applicants:** A count of the individuals who received official notice from the program that they were invited to begin the nursing program during the reporting period.

**ADN/ASN Program, Generic:** A program of instruction that requires at least two years of full-time equivalent college academic work, generally within a junior or community college. Completion results in an associate's degree with a major in nursing and eligibility to apply for licensure as an RN. This may also be called a "traditional" curriculum sequence.

**ADN/ASN Program, Accelerated Option:** A prelicensure RN associate degree program with a curriculum sequence for students having **some** formal training in nursing or a related field. The accelerated option (also called a bridge program) typically accelerates degree completion for students who are licensed as LPNs or paramedics, for example. Completion results in an associate's degree with a major in nursing and eligibility to apply for licensure as an RN.

**Diploma Program:** A program of instruction that requires two to three years of full-time equivalent coursework, usually within a hospital-based structural unit. Completion results in a diploma or certificate of completion and eligibility to apply for licensure as an RN.

**DNP Program:** A program of instruction that prepares graduates for the highest level of nursing practice beyond the initial preparation in the discipline. The Doctor of Nursing Practice degree is the terminal practice degree.

**Faculty Vacancy:** A vacant position for a faculty member that is being actively recruited as of the fall term census date.

**Full-time Faculty:** Those members of the instructional, administrative, or research staff of the nursing academic unit who are employed full-time as defined by the institution, hold academic rank, carry the full scope of faculty responsibility (e.g., teaching, advisement, committee work), and receive the rights and privileges associated with full-time employment. These faculty may be tenured, tenure-track, or nontenure track (given that there is a tenure system in the institution).

**Graduates:** A count of the number of students who successfully completed the program requirements and were formally awarded the degree during the reporting period.

**LPN Program:** A program of instruction that requires at least one year of full-time equivalent coursework generally within a high school, vocational/technical school, or community/junior college setting, the completion of which results in a diploma or certificate of completion and eligibility to apply for licensure as an LPN/VN.

**MSN Program, Clinical Track:** A postlicensure master's program with emphasis on advanced clinical practice, including Nurse Practitioner, Nurse Anesthetist, Nurse Midwifery, and Clinical Nurse Specialist tracks.

**MSN Program, Nonclinical Track:** A postlicensure master's program with nonclinical emphasis, such as Nurse Educator and Management/Leadership tracks.

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<sup>3</sup> Sources: National Forum of State Nursing Workforce Centers and Interagency Collaborative on Nursing Statistics.

**Other Doctoral Program:** Any postlicensure doctoral programs conferring degrees other than the PhD or the DNP.

**Part-time Faculty:** Those members of the instructional, administrative, or research staff of the nursing academic unit who are employed part-time as defined by the institution, may or may not hold academic rank, carry responsibility for a specific area (e.g., teaching a single course), and may carry any number of titles (e.g., adjunct, clinical instructor). Part-time faculty may be permanent or contractual employees. These faculty members are typically not eligible for tenure.

**PhD Program:** A postlicensure doctoral program that culminates in the Doctorate of Philosophy in Nursing.

**Postlicensure BSN Program (RN-BSN Program):** A program for students who are already licensed as RNs but whose highest nursing degree is a diploma or associate's degree.

**Prelicensure BSN Program, Generic:** A program of instruction to prepare registered nurses that admits students with no previous nursing education, the completion of which results in a baccalaureate degree (e.g., BA, BS, BSN) with a major in nursing and eligibility to apply for licensure as an RN. The program requires at least four years but not more than five years of full-time equivalent college academic work within a four-year college or university.

**Prelicensure BSN Program, Second Degree:** A program of instruction to prepare registered nurses that admits students with baccalaureate degrees in other disciplines and no previous nursing education and, at completion, awards a baccalaureate degree in nursing and eligibility to apply for licensure as an RN. The curriculum is designed to be completed in less time than the generic (entry-level) baccalaureate program, usually through a combination of "bridge"/transition courses.

**Prelicensure MSN Program (Entry MSN):** A program of instruction that admits students with baccalaureate degrees in other disciplines and no previous nursing education. The program prepares graduates for entry into the profession, eligibility to apply for licensure as an RN, and upon completion awards a master's degree (e.g., MSN, MS, MA) in nursing. Licensed students are not included in this count.

**Qualified Applicants:** A count of the individuals who submitted complete applications on time and who met all institutional requirements for formal admission to the nursing program during the reporting period.

**Reporting Period:** The 12-month reporting period is August 1 through July 31. Questions about the production cycle of a nursing program, such as the number of qualified applicants or graduates, should use the most recently completed one-year time frame.

**Seats for New Students:** A count of the total number of seats available for newly admitted students during the reporting period. If the program does not have a formal limit on seats for new students, the number of seats is recorded as "Unlimited."

**Total Student Enrollment:** A count of the number of students enrolled on the fall term census date. This count should include students at all points of the program's curriculum sequence, including newly enrolled and continuing students, and students in their final semester or year.