

This update presents information for the 119 pre-licensure registered nursing (RN) programs that reported data for the 2017 reporting year, including:

- 1 diploma program;
- 68 Associate Degree in Nursing (ADN) programs, including 57 generic ADN programs and 11 licensed vocational nurse (LVN) to ADN stand-alone programs;
- 49 Bachelor of Science in Nursing (BSN) programs; and
- 1 Master of Science in Nursing Alternate Entry (MSN AE) program.

The Texas Center for Nursing Workforce Studies (TCNWS) collected data using the 2017 Board of Nursing's (BON) Nursing Education Program Information Survey (NEPIS) that was available online as of October 2, 2017. The reporting period was academic year (AY) 2016-2017 (September 1, 2016 – August 31, 2017) unless otherwise noted. TCNWS collaborated with the BON in the design and dissemination of the survey.

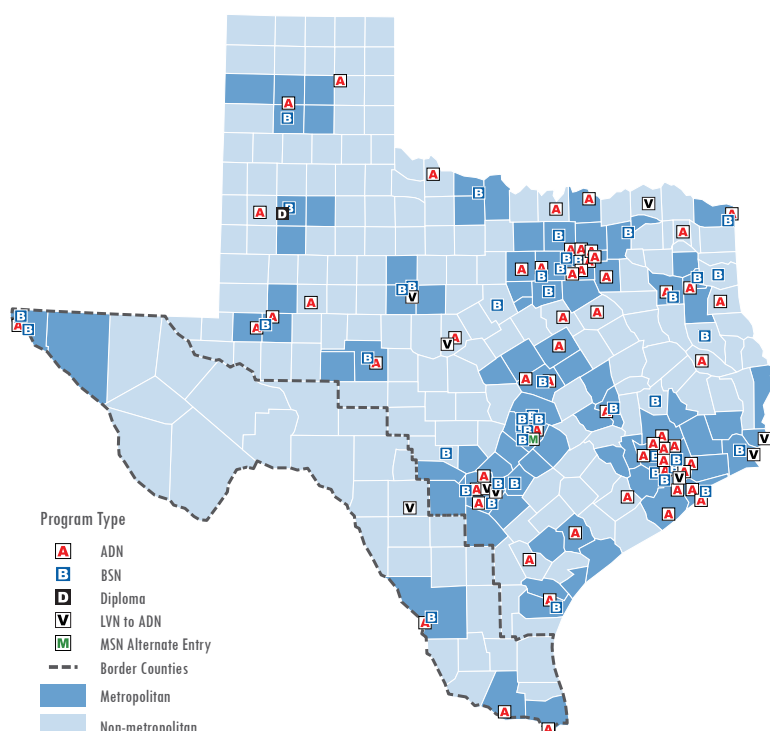
Geographic Location of Professional Nursing Programs

Figure 1 presents the locations of the 119 professional nursing programs in Texas by metropolitan and non-metropolitan counties. Table 1 summarizes the location of programs by type and geographic designation.

Table 1. Geographic Designation of Main Campuses

Program Type	Geographic Designation				Total
	Metro Border	Metro Non-Border	Non-Metro Border	Non-Metro Non-Border	
Diploma	0	1	0	0	1
ADN	4	39	1	13	57
LVN to ADN	1	8	0	2	11
BSN	4	41	0	4	49
MSN AE	0	1	0	0	1
Total	9	90	1	19	119

Figure 1. Geographic Location of RN Programs by Type



- 90 programs (75.6%) were located in metropolitan, non-border counties.
- 19 programs (16.0%) were located in non-metropolitan, non-border counties.
- 9 programs (7.6%) were located in metropolitan, border counties.
- Only 1 program (0.8%) was located in a non-metropolitan, border county.

Changes in the Number of Professional Nursing Programs

Table 2 displays the changes over time in the number of professional nursing programs.

- During AY 2016-2017, 6 new programs opened and 3 programs closed.

Table 2. Changes in the Number of Professional Nursing Programs, 2008-2017

	New Programs	Closed Programs	Total Programs
2008	6	0	92
2009	2	1	93
2010	5	2	96
2011	9	0	105
2012	2	1	106
2013	9	2	113
2014	3	2	114
2015	6	1	119
2016	3	6	116
2017	6	3	119

Table 3 shows the number of professional nursing programs, by program type, over the past 10 years.

- The number of diploma and MSN AE programs has remained relatively steady from 2008 to 2017.

- The number of LVN to ADN stand-alone programs has remained relatively steady since 2008. The number increased from 2016 to 2017. One LVN to ADN program had been previously misclassified as an ADN program.
- The number of ADN programs increased from 2008 to 2011 and has remained relatively steady since.
- The number of BSN programs increased by 69.0% from 2008 to 2017. From 2016 to 2017, 2 BSN programs opened.

Table 3. Number of Professional Nursing Programs by Program Type, 2008-2017

	Diploma	LVN to ADN	ADN	BSN	MSN AE
2008	2	10	50	29	1
2009	2	9	52	29	1
2010	1	8	54	32	1
2011	1	8	58	37	1
2012	1	9	57	38	1
2013	1	10	58	43	1
2014	1	10	58	44	1
2015	1	9	60	48	1
2016	1	8	59	47	1
2017	1	11	57	49	1

Governing Institutions

Of the 119 professional nursing programs operating in Texas during AY 2016-2017, 88 programs (73.9%) were governed by public institutions.

- 82 operated within public colleges and universities.
- 6 operated within health science centers.

The other 31 programs (26.1%) were governed by private institutions.

- 17 were governed by private, non-profit institutions.

- 15 operated within private colleges and universities.
- 1 operated within a career school/college.
- 1 operated within a hospital.
- 14 were governed by private, for-profit institutions.
- 10 operated within private colleges and universities.
- 4 operated within career schools/colleges.

These were mutually exclusive categories.

Length of Curriculum in Professional Nursing Programs

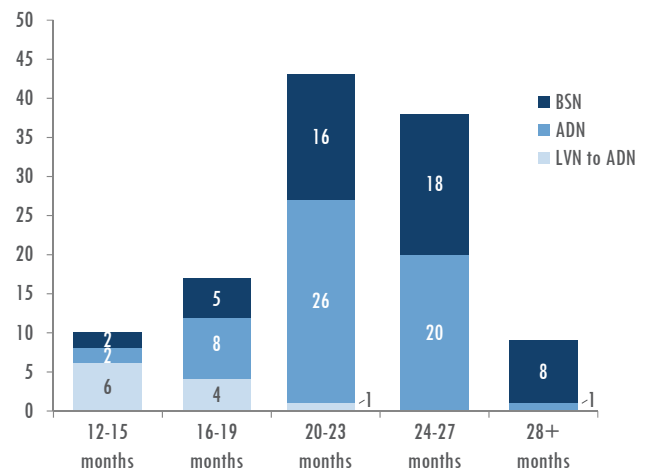
In the 2017 NEPIS, programs were asked to report the length of their nursing curriculum in months, not including nursing prerequisites.

- The diploma program was 20 months in length and the MSN AE program was 12 months.
- ADN programs ranged from 15 to 28 months in length. The mean and median lengths for ADN programs were 21.4 and 22 months, respectively.
- LVN to ADN programs ranged from 12 to 20 months in length. The mean and median lengths for LVN to ADN programs were 14.8 and 12 months, respectively.
- BSN programs ranged from 12 to 36 months in length. The mean and median lengths for BSN programs were 23.3 and 24 months, respectively.

Figure 2 shows the number of programs that reported each nursing curriculum length.

- 20 ADN programs and 17 BSN programs reported a nursing curriculum length of 24 months.

Figure 2. Frequency of Nursing Curriculum Length by Program Type



- 12 ADN and 7 BSN programs reported a 21-month curriculum.
- 1 BSN, 1 MSN AE, and 6 LVN to ADN programs reported a 12-month curriculum.

Program Tracks in Professional Nursing Programs

Program tracks are alternate pathways for students to meet the nursing program's objectives or outcomes. 95 of the 119 RN programs (79.8%) offered tracks in addition to their basic program.

- 60 programs (50.4%), including the 11 stand-alone LVN to ADN programs, offered an LVN to ADN track.
- 26 programs (21.8%) offered an RN to BSN track.
- 17 programs (14.3%) offered a paramedic/EMT to ADN track.
- 9 programs (7.6%) offered a bachelor's degree to BSN track.
- 13 programs (10.9%) offered an accelerated/compressed curriculum.

Programs were asked about tracks that give active duty, former, or retired military personnel nursing credit for allied health care training or experience.

- 8 programs currently offered such a track, while 13 are planning to implement one.

- These 8 programs included 4 BSN programs, 3 ADN programs, and 1 LVN to ADN program.
- The 8 programs reported having a total of 149 students enrolled in these tracks.
- Programs cited challenges to implementing military tracks, such as the difficulty of evaluating military transcripts (7 programs), insufficient funding (3 programs), and lack of faculty (1 program).

Programs were also asked about options for high school students.

- 3 programs reported offering options for high school students. All 3 were ADN programs.
- The 3 programs reported having a total of 14 students enrolled in these tracks.
- 1 program admitted students in their junior year of high school as part of a pilot program. The other 2 programs specified that they admitted high school students using the same standards they would to admit other students.

Advanced Placement in Professional Nursing Programs

Some professional nursing programs offer advanced placement for students.¹ Students with prior VN or RN nursing education, paramedics, students with a background in allied health, LVNs, or students who hold a baccalaureate or master's degree in a discipline other than nursing may be eligible for advanced placement.

- As shown in Table 4, 54.6% of programs offered advanced placement to LVNs and 45.4% of programs offered advanced placement to students with some prior VN or RN education.
- 13.4% of programs offered advanced placement to paramedics/EMTs, 7.6% offered advanced placement to military healthcare personnel, 2.5% of programs offered advanced placement to allied health professionals, and 2.5% offered advanced placement to those with baccalaureate/master's degrees in other disciplines.

- 21.8% of programs did not grant advanced placement. These included 16 BSN, 5 ADN, 4 LVN to ADN, and 1 MSN AE program.

There were several mechanisms used by programs to grant advanced placement to students. Such mechanisms included direct transfer of credit or granting credit with a transition course, the completion of designated courses, passing written exam(s), or tech prep courses.² Table 5 indicates the types of mechanisms used to grant advanced placement by program type.

- Direct transfer of credit was the most widely used mechanism to grant advanced placement to pre-licensure nursing students across all program types (58.0% of programs), followed by granting credit with a transition course (42.9% of programs).

Table 4. Number of Programs that Grant Different Types of Students Advanced Placement¹ by Program Type

Program Type	Type of Advanced Placement					
	Students with prior VN or RN nursing education	Paramedic/EMT	Allied health	LVN	Baccalaureate/master's in discipline other than nursing	Military healthcare personnel
Diploma	0	0	0	1	0	0
ADN	30	16	3	49	0	4
LVN to ADN	2	0	0	4	0	1
BSN	22	0	0	11	3	4
MSN AE	0	0	0	0	0	0
Total	54	16	3	65	3	9

Table 5. Number of Programs Using Different Mechanisms to Grant Advanced Placement¹ by Program Type

Program Type	Type of Advanced Placement					
	Direct transfer of credit	Grant credit with transition course	Grant credit with completion of designated courses	Grant credit with passing written exam(s)	Tech prep courses ²	College credit for active duty, former, and retired military personnel
Diploma	1	1	0	0	0	0
ADN	38	40	12	7	1	3
LVN to ADN	3	2	1	1	0	1
BSN	27	8	7	14	0	3
MSN AE	0	0	0	0	0	0
Total	69	51	20	22	1	7

¹Advanced placement is defined as a mechanism by which students with relevant prior education and/or experience may be offered course credit by meeting certain other requirements.

²Tech prep courses are courses taken as part of a tech prep program. Section 2, Chapter 61, Subchapter T of the Texas Education Code defines tech prep programs as programs of study that combine secondary and post-secondary study through the integration of academic instruction with vocational and technical instruction. For more information on tech prep programs, please see the above stated section of the Texas Education Code.

Online Availability of Professional Nursing Programs³

Programs were asked whether they offered nursing courses via online technology. Of the 119 professional nursing programs:

- 4 programs (3.4%) offered the entire didactic program curriculum online. Of these, 1 was an LVN to ADN program and 3 were BSN programs.
- 45 programs (37.8%) offered select courses online. Of these, 18 were ADN, 1 was an LVN to ADN, and 26 were BSN programs.
- 74 programs (62.2%) offered web-enhanced sections of courses online. Of these, 1 was a diploma program, 33 were ADN, 3 were LVN to ADN, and 37 were BSN programs.

- 33 programs (27.7%) had no online course availability. These included 19 ADN, 7 LVN to ADN, 6 BSN, and 1 MSN AE programs.

Since 2010, the percent of programs that offered the entire didactic curriculum online or offered web-enhanced sections of courses online has remained relatively steady. The percent of programs offering select courses online has decreased (down from 61.5% in 2010).

³Please note that programs may offer select courses entirely online and select courses as hybrids. Also note that all programs, whether or not they offered any portion of their program online, offered hands-on, face-to-face clinical experiences. Didactic curriculum is defined as including actual hours of classroom instruction in nursing and non-nursing Board-required courses/content.

Program Hours in Professional Nursing Programs

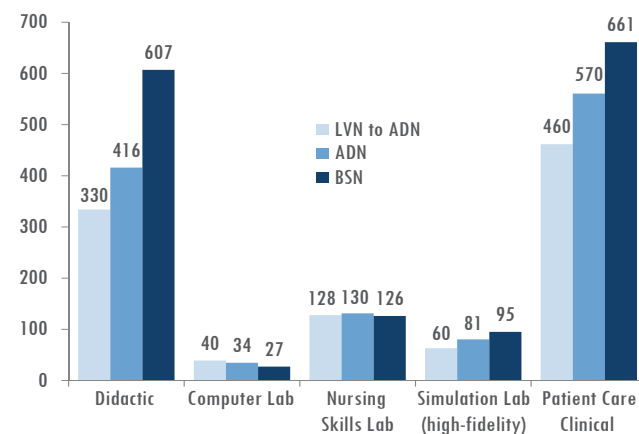
In the 2017 NEPIS, programs were asked to provide information regarding the number of contact hours required in each of the following areas in their program of study: didactic, computer lab, skills lab, simulation lab, and patient care clinical situations. Figure 3 graphs the median value for each of the program activities for ADN, LVN to ADN, and BSN programs. Please note that there was only one diploma program and one MSN AE program so the median value was equal to the actual value reported by each program. For that reason, they are not graphed in Figure 3.

As evidenced by Figure 3, there was variation in the hours required by professional nursing programs both between and within program types. Some reasons for the variation may include: inherent differences between the program types (e.g., LVN to ADN programs are generally more abbreviated programs of study than ADN or BSN programs), differences between the operational definitions used in the NEPIS and how programs define these activities, or variations in the accuracy of self-reporting these hours by professional nursing programs.

Didactic Contact Hours

In this report, didactic includes actual hours of classroom instruction in nursing and non-nursing Board-required

Figure 3. Median Contact Hours Reported by Program Type



courses/content. The didactic hours reported by professional nursing programs ranged from 32 to 2,080 hours.

Programs were asked what type of curriculum they used. 61 (51.3%) reported using a block curriculum, 28 (23.5%) used an integrated curriculum, and 27 (22.7%) used a concept-based curriculum.⁴ Of those 27 programs, 14 (51.9%) said that their program's concept-based curriculum adheres to the Texas model. 3 programs (2.5%) reported using some combination of curriculum types.

Computer Lab

Computer lab is defined as interactive tutorials and learning modules that are part of a curriculum that is separate from didactic. 92 programs (77.3%) reported computer lab hours for their program of study. The computer lab hours reported ranged from 2 to 400 hours. The median number of computer lab hours reported by all programs has not changed substantially since 2011, but the percent of programs offering computer lab hours has increased from 66.7% to 77.3%.

Nursing Skills Lab (low- and moderate-fidelity simulations and task training)

In this report, nursing skills lab is defined as low- and medium-fidelity simulations and task training. All programs reported skills lab hours as part of their nursing curriculum. The skills labs hours reported by professional nursing programs ranged from 6 to 544 hours. The median number of nursing skills lab hours reported by all programs has decreased from 144 in 2011 to 129 in 2017.

High-Fidelity Simulation Lab

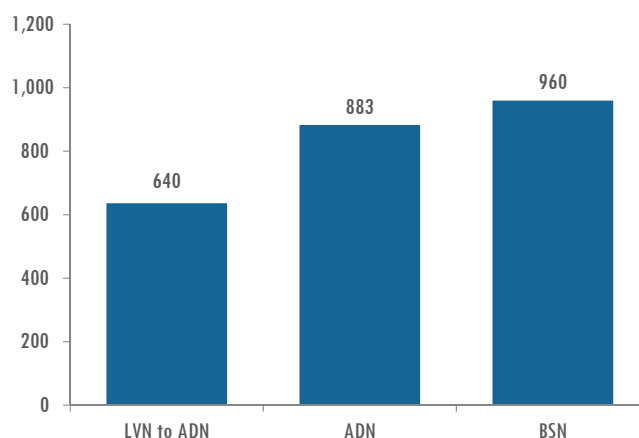
Simulation lab refers to high-fidelity situations which are defined as structured learning experiences with computerized mannequins that are anatomically precise and reproduce physiologic responses. The environment mimics the clinical setting. All but 8 programs (93.3%) reported simulation lab hours for their programs of study. This percentage has been increasing since 2010, when 81.3% of programs required simulation lab hours. The simulation lab hours reported ranged from 16 to 324 hours. The median number of simulation lab hours reported by all programs has increased from 48 in 2011 to 81.5 in 2017, and the percent of programs offering simulation lab hours has increased from 82.9% to 93.3%.

73 programs (61.3%) reported that they had plans to increase the number of simulation lab hours over the next academic year. 32 programs (26.9%) reported that they weight simulation lab hours differently from hands-on clinical practice hours.

Programs were asked to provide their faculty to student ratios in simulation activities.

- The ratio varied from 1:2 in 2 programs to 1:25 in 1 program.
- The most commonly reported ratio was 1:10 (51 programs).

Figure 4. Median Total Clinical Contact Hours Reported by Program Type



Patient Care Clinical Situations

In this report, patient care clinical situations were defined as hands-on clinical practice with actual patients in a clinical setting including all faculty-supervised activities in the clinical setting, such as direct care, observational experiences, and clinical conferences. The patient care clinical situations hours reported ranged from 192 to 1,052 hours. The median number of patient care clinical situations hours reported by all programs has decreased from 712 in 2011 to 600 in 2017.

Total Clinical Contact Hours

Figure 4 displays the median total clinical contact hours reported by program type. Total clinical contact hours includes patient care clinical situations, nursing skills lab, simulation lab, and computer lab hours.

- Diploma and MSN AE represent 1 program each, so they were not included in Figure 4. The diploma program reported total clinical contact hours of 1,392 and the MSN AE program reported 946 total clinical contact hours.
- BSN programs reported the highest median clinical contact hours (960). The mean clinical contact hours for BSN programs was 952.9. BSN program clinical contact hours ranged from 732 to 1,300.
- ADN programs reported a median of 883 and a mean of 897.2 total clinical contact hours. ADN programs reported a range of total clinical contact hours from 416 to 1,856.
- LVN to ADN programs had a median of 638 and a mean of 648 clinical contact hours. Hours varied among LVN to ADN programs from 464 to 848.

- 14 programs (11.8%) reported that they used Dedicated Education Units (DEUs) as a clinical format.⁵

Table 6 displays the percentage of hands-on clinical practice time programs reported students spent in a variety of settings.

Table 6. Percentage of Hands-On Clinical Time Spent by Setting

Clinical Setting	Mean % of Time Spent	Median % of Time Spent
Acute Care	75.1%	79.0%
Long Term Care	9.0%	6.4%
Community Settings	11.8%	10.0%
Other	4.1%	0.0%

⁴ A concept-based curriculum focuses on helping nursing students learn generalities, or concepts, that can be applied to specifics instead of focusing on expanded content and facts. Conceptual learning in nursing involves emphasizing concepts that link to the delivery of patient care.

⁵ A Dedicated Education Unit is a nursing education model based upon a contractual agreement between a hospital and a nursing education program. Staff nurses on a specific hospital unit function as the primary instructors for nursing students during clinical learning experiences, and nursing program faculty serve as mentors and education resources for the staff nurses.

- The majority of hands-on clinical practice hours were spent in the acute care setting, with programs reporting an average of 75.1% of clinical practice hours spent in the acute care setting.
- The next most used setting was the community setting, with an average of 11.8% of clinical practice hours.
- “Other” settings included psych/mental health (9 programs) and schools (3 programs).
- The percentage of time spent in these settings has not changed significantly since 2014, when these categories were first introduced.

Interprofessional Collaboration in Professional Nursing Programs

Based on the recommendation of the Institute of Medicine’s Future of Nursing report,⁶ the 2017 NEPIS included a question on the amount of interprofessional collaboration pre-licensure RN students experience.

Programs were asked to report the number of required nursing courses that offered clinical or simulation experiences for both entry-level RN students and one or more types of other graduate-level health professional students, such as physicians, physician assistants, or pharmacists.

- 67 programs reported zero required nursing courses that offered interprofessional collaboration experiences.
- 52 programs reported requiring anywhere from one course (7 programs) to 17 courses (1 program).
 - These included 24 BSN programs, 24 ADN, 3 LVN to ADN, 1 MSN AE, and 1 diploma program.

⁶ The Institute of Medicine of the National Academy of Sciences. (2010). *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>