

This update presents data for the 85¹ vocational nursing (VN) programs and the military-based VN program¹ in Texas during the 2021 reporting year, including:

- 81 generic programs
- 4 Multiple Entry/Exit Programs (MEEPs)

The Texas Center for Nursing Workforce Studies (TCNWS) collected data using the 2021 Board of Nursing’s (BON) Nursing Education Program Information Survey (NEPIS) that was available online as of October 4, 2021. The reporting period was academic year (AY) 2020-2021 (September 1, 2020 – August 31, 2021) unless otherwise noted. TCNWS collaborated with the BON in the design and dissemination of the survey.

¹Data collected from the military-based VN program were analyzed separately.

Geographic Location of Vocational Nursing Programs

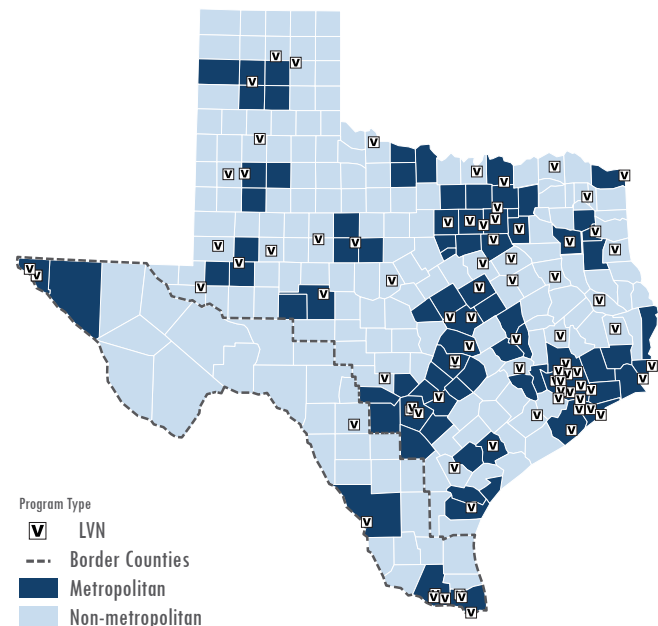
Table 1 summarizes the location of VN programs by setting and geographic designation. Figure 1 presents the geographic locations of the 85 VN program main campuses in Texas by metropolitan and non-metropolitan counties.

- 49 (57.6%) VN programs were located in a metropolitan, non-border area.
- 25 (29.4%) VN programs were located in a non-metropolitan, non-border area.
- 10 (11.8%) VN programs were located in a metropolitan, border area.
- 1 (1.2%) VN program was located in a non-metropolitan, border area.

Table 1. Geographic Designation of Main Campuses, 2021

Program Setting	Geographic Designation				Total
	Metro Border	Metro Non-Border	Non-Metro Border	Non-Metro Non-Border	
Community, State, or Technical College	6	39	1	22	68
Independent College or University	0	0	0	1	1
For Profit and other institutions	4	10	0	2	16
Total	10	49	1	25	85

Figure 1. Geographic Location of VN Programs, Main Campuses, 2021



Changes in the Number of Vocational Nursing Programs

Table 2 shows the number of newly opened, closed, and total VN programs by year.

- In 2021, there were 85 VN programs. There were 3 closures between 2020 and 2021, and 2 new programs opened.
- In the past 10 years, there has been a reduction of 12 programs.

² One program was approved to conduct a teach-out for VN students who were near graduation but attended a VN program that closed in 2016.

Table 2. Number of Opened, Closed, and Total VN Programs, 2011-2021

Year	Newly Opened Programs	Closed Programs	Total Programs
2011	2	1	97
2012	2	2	97
2013	1	0	98
2014	0	6	92
2015	1	2	91
2016	0	3	88
2017	2	1	90 ²
2018	0	1	89 ²
2019	1	5	85
2020	1	0	86
2021	2	3	85

Institution Types

The 85 VN programs operating in Texas were classified as follows:

- 68 community, state, and technical colleges

- 1 independent college or university
- 16 career colleges and schools or other institutions

These were mutually exclusive categories.

Length of Curriculum in Vocational Nursing Programs

In the 2021 NEPIS, programs were asked to report the length of their VN curriculum in months.

- Length of curriculum ranged from 9 to 18 months among VN programs.

- 71 (83.5%) VN programs were 12 months in length.
- 10 programs (11.8%) had a curriculum longer than 12 months, and 4 programs (4.7%) reported a curriculum less than 12 months in length.

Online Availability of Vocational Nursing Programs³

49 of 85 VN education programs indicated that they offered nursing courses via online technology:

- Similar to previous years, 1 program offered the entire didactic portion online in 2021.
- 30 programs offered only select nursing courses entirely online, an increase from 25 in 2020.

- 37 programs offered hybrid courses (greater than 50% but less than 85% online)³, an increase from 27 in 2020.

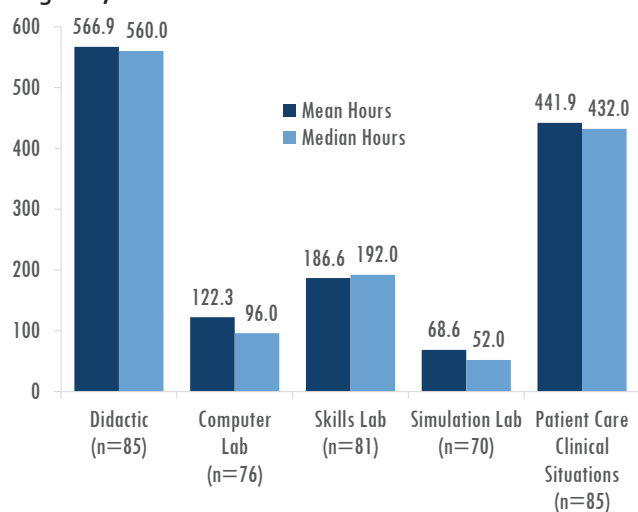
³ Please note that programs may offer select courses entirely online and select courses as hybrids. Also note that all programs, whether or not they offered any portion of their program online, offered hands-on, face-to-face clinical experiences. Didactic curriculum is defined as including actual hours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

Program Hours in Vocational Nursing Programs

Programs were asked to report the total number of hours students were required to participate in didactic and clinical portions of the program of study. The clinical portion is the sum of computer lab, skills lab, simulation lab, and patient care clinical situation hours.

Figure 2 reports the mean and median number of contact hours (didactic and clinical) reported by VN programs. Clinical hours are further broken down by computer lab, skills lab, simulation lab, and patient care clinical situation hours.

Figure 2. Didactic and Clinical Contact Hours among VN Programs, 2021



Note: n is the number of programs reporting more than zero hours for that type of activity.

- The didactic contact hours included face-to-face or online delivery of classroom instruction. The mean number of didactic hours reported by VN programs was 566.9 hours. The median number of hours was 560.
- The mean and median total clinical contact hours reported by VN programs were 819.5 and 848 hours, respectively. The highest number of hours reported was 1,868.
- Computer lab was an optional component of clinical hours that included interactive tutorials and learning modules. The mean and median hours reported by 76 VN programs for computer lab were 122.3 and 96 hours, respectively. This was an increase from 69.3 and 49 hours in 2020.

- Skills lab was defined as low- and medium-fidelity simulations and task training. The mean and median hours reported by 81 programs were 186.6 and 192 hours, respectively.
- Simulation lab was defined as high-fidelity situations including orientation, learning objectives, simulation experience, debriefing, and evaluation. The mean and median hours reported by 70 programs for simulation lab were 68.6 and 52 hours, respectively.
- Patient care clinical situations were hands-on clinical practice with actual patients in a clinical setting, including all faculty-supervised activities in the clinical setting, observational experiences, and clinical conferences. The mean and median number of hours reported by all 86 programs for patient care clinical situations were 441.9 and 432 hours, respectively. This was a decrease from 549.2 and 560 hours in 2020.

Programs were asked what type of curriculum they used. 59 (69.4%) reported using a block curriculum,⁴ 15 (17.6%) used an integrated curriculum,⁵ and 8 (9.4%) used a concept-based curriculum.⁶ 3 programs (3.6%) reported using a traditional curriculum.

If programs implemented permanent curriculum changes during AY 2020-2021, they were asked to select which changes were implemented (Table 3). Programs could select more than one type of change. 82.4% of programs did not implement a permanent curriculum change.

Table 3. Types of permanent curriculum changes implemented, 2021

	# of programs	% of programs
No permanent change	70	82.4%
A minor change (editorial changes, moving content, hours between courses)	7	8.2%
Changes in clinical hours	7	8.2%
Online delivery (more didactic online, moving to hybrid courses)	9	10.6%
A total revision of curriculum	1	1.2%
Adding and removing courses	2	2.4%
A change in program objectives, major concepts	0	0.0%
Other	5	5.9%

Programs were asked to indicate whether they used Dedicated Education Units (DEUs)⁷ as a clinical format.

- 6 programs stated they used DEUs, 1 less than in 2020.

Programs were also asked to provide additional information on their simulation lab hours. As seen in Table 4:

Table 4. Simulation Hours, 2021

	n	Yes	No
Plan to Increase Simulation Lab Hours	85	24 (28.2%)	61 (71.8%)
Simulation Lab Hours Weighted Differently	85	22 (25.9%)	63 (74.1%)

Note: n is the number of responding programs

- The number of programs planning to increase simulation lab hours decreased from 45 in 2020 to 24 in 2021.
- 66 programs (76.7%) indicated that simulation lab hours were not weighted differently than hands-on clinical hours.

Programs were also asked to report the faculty-to-student ratio in simulation activities.

- The faculty-to-student ratios reported ranged from 1:2 (2 programs) to 1:20 (1 program).
- The most frequently reported faculty-to-student ratio was 1:10 (44 programs).
- 1:5 was the second most frequently reported faculty-to-student ratio (13 programs).

Table 5. Average Percentage of Hands-On Clinical Time Spent by Setting, 2021

Clinical Setting	Mean % of Time Spent	Median % of Time Spent
Acute Care	45.4%	50.0%
Long Term Care	33.8%	30.0%
Community	13.8%	10.0%
Other	7.1%	0.0%

Table 5 shows the percentage of hands-on clinical practice time programs reported students spent in several different clinical settings.

- The largest percentage of hands-on clinical time was spent in acute care, with a mean of 45.4% of clinical time spent, followed by long term care, with a mean of 33.8% of clinical time spent.

The 2021 NEPIS asked how many hands-on clinical contact hours in the VN program were devoted to the nursing care of children and maternity nursing.

- The mean and median number of hands-on clinical contact hours devoted to the nursing care of children were 36.4 and 30 hours, respectively.
- Programs reported a mean of 39.0 and a median of 36 hands-on clinical contact hours devoted to maternity nursing.

⁴ Block curriculum: blocks or chunks of nursing content that are structured around particular clinical specialty areas, patient population, pathology, or physical systems. The content and focus of each course tends to be unique to that course. Content commonly is specific to areas such as medical-surgical nursing, mental health nursing, pediatric nursing, maternity nursing, gerontological nursing, and community nursing.

⁵ Integrated curriculum: curriculum pattern where nursing content is woven across courses in the curriculum rather than being based on body systems or specific health problems.

⁶ Concept-based curriculum: curriculum based upon faculty-identified concepts that are considered core to nursing practice and threaded across the curriculum. Each concept is presented through application to exemplars of each concept.

⁷ 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.



Interprofessional Collaboration in Vocational Nursing Programs

The 2021 Differentiated Essential Competencies (DECs)⁸ expect all levels of nursing education to prepare graduates to actively participate with interdisciplinary health care teams in the provision of quality patient care to all clients as a part of the nurse role of Member of the Health Care Team. Nursing activities in interdisciplinary practice include communication and collaboration in a timely manner, participation as an advocate for quality care, the effective use of technology, and provision of care in the appropriate scope of practice.

Programs were asked to report the number of required nursing courses that offered clinical or simulation experiences for both VN students and one or more types of health professional students, such as professional nursing students, physician assistant students, pharmacy students, etc.

- 46 of 85 programs (54.1%) reported that at least one required nursing course included interprofessional collaboration.
- These 46 programs reported requiring anywhere from 1 course (10 programs) to 11 courses (1 program).

⁸ Texas Board of Nursing. (2021). *Differentiated Essential Competencies of Graduates of Texas Nursing Programs*. Retrieved from: https://www.bon.texas.gov/pdfs/publication_pdfs/Differentiated%20Essential%20Competencies%202021.pdf

High School and Military Tracks in Vocational Nursing Programs

The 2021 VN NEPIS asked programs about options for high school students.⁹

- 7 programs reported offering options for high school students.
- 2 of these programs allow students to complete the entire nursing curriculum in high school.

Programs that currently had a dual credit high school track were asked how many students were in the track.¹⁰

- The 7 programs with students in a dual credit high school track reported a total of 108 students enrolled in those tracks, a decrease from 282 in 2020.

Programs were asked to report whether they had implemented a track that gives active duty, former, or retired military personnel nursing credit for allied health care training and/or experience.

- In 2021, 2 programs reported having such a track.
- 1 program reported that their military track was an accelerated track with a shorter completion time than the traditional vocational nursing track.
- Neither of these programs identified any challenges to planning or implementing the military track.

⁹ More information on nursing programs for high school students can be found in the 2021 Nursing Education for High School Students report located at: <https://dshs.texas.gov/chs/cnws/Nursing-Education-Reports.aspx>

¹⁰ Programs offered dual credit courses for prerequisites, nursing courses, or a combination of both nursing and prerequisites courses.