Strategies to Increase the Number of Graduates from Initial RN Licensure Programs

A Report to the Texas Legislature

Produced in collaboration with

The Task Force to Increase RN Graduates in Texas

Texas Higher Education Coordinating Board
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Texas Higher Education Coordinating Board

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Mission of the Coordinating Board

The Texas Higher Education Coordinating Board’s mission is to work with the Legislature, Governor, governing boards, higher education institutions and other entities to help Texas meet the goals of the state’s higher education plan, *Closing the Gaps by 2015*, and thereby provide the people of Texas the widest access to higher education of the highest quality in the most efficient manner.

Philosophy of the Coordinating Board

The Texas Higher Education Coordinating Board will promote access to quality higher education across the state with the conviction that access without quality is mediocrity and that quality without access is unacceptable. The Board will be open, ethical, responsive, and committed to public service. The Board will approach its work with a sense of purpose and responsibility to the people of Texas and is committed to the best use of public monies. The Coordinating Board will engage in actions that add value to Texas and to higher education. The agency will avoid efforts that do not add value or that are duplicated by other entities.

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Executive Summary

The 79th Legislature directed the Texas Higher Education Coordinating Board (THECB) to identify, develop, and study strategies for increasing graduation rates from initial licensure registered nurse (RN) programs (initial licensure programs) in the state and determine which of those strategies are effective. In studying strategies, THECB also considered the need to increase the number of graduates and nursing faculty to help meet state workforce projections through 2010. This report is the THECB's response to that directive.

To begin studying these strategies, THECB first determined student success rates in initial licensure programs. Students enrolled in these programs were tracked so that THECB could calculate the percentage of students who completed the program within two years (completion rate)[1] or persisted in these programs after two years (persistence rate). The combined completion and persistence rate is the "CPR." THECB also formed a task force to study strategies for increasing success in these programs. The task force collected survey data from nursing program administrators, nursing faculty, and graduating nursing students, then analyzed those results in the context of other trends in nursing education and nursing practice.

Key Findings

Completion and Persistence Rates

● The statewide completion rate was 56 percent. The statewide persistence rate was 13 percent. The statewide completion and persistence rate (CPR) was 69 percent.

● About 31 percent of the original student cohort did not complete the nursing program during the two-year period, and was not enrolled in the program after two years.

● The statewide CPR varied little by state region but varied significantly by institution (34 percent to 96 percent). Programs at health-related institutions -- which usually have the most competitive admission criteria -- had the highest CPR (83 percent), followed by those at universities (74 percent) and community colleges (65 percent).

● Programs at community colleges had higher completion rates than those at universities, but the lowest persistence rates of the three types of institutions.

Survey Results and Trends Analysis

Nursing Faculty

● In 2005, 1,579 full-time equivalent (FTE) faculty were employed in the state's initial licensure programs.

● Based on those 2005 FTE numbers, nursing programs will need to increase the number of FTE faculty by 54 percent to meet current projections for the number of graduates needed by

[1] Completion rates differ from graduation rates in that they measure the percentage of full-time students who complete the nursing curriculum within a two-year period. Graduation rates measure the percentage of students who complete the pre-requisite/Core Curriculum requirements (normally one to two years depending upon type of program) and the nursing curriculum (approximately two years).

2010. That percentage does not include the number of faculty who will need to be replaced due to retirements.

● About 70 percent of all nursing faculty surveyed in 2004 will reach retirement age within the next five to 15 years; 22 percent within the next five years. Given the current job market, nursing programs will have a significant challenge replacing them and continue to maintain existing levels of enrollment and academic quality.

● In 2005, 77 percent of nursing faculty teaching in initial RN licensure programs had master's degrees in nursing or in another field. Another 22 percent had doctorates in nursing or in another field.

● Only 31 of the 614 students who completed master's degrees in 2005 were specifically prepared to assume nursing faculty positions. Most of them were prepared for advanced nursing practice.

● Advanced practice nurses in Texas can earn between $70,000 to $79,000, with a median salary of $73,500. Master's-prepared faculty at public institutions usually earn between $41,000 and $45,000 for a nine-month contract.

● Despite these salary differentials, nursing programs have been successful in employing some advanced practice nurses to teach at least part-time. These nurses have no formal preparation in the instructional competencies needed by faculty.

● During the past five years, full-time faculty positions decreased by 9.5 percent while part-time faculty positions increased 32 percent. The increase in part-time faculty has placed more responsibility on full-time faculty to update the curriculum, integrate technology into the program, and ensure that students receive the academic services they need to be successful. As they can, the full-time faculty mentor new full- and part-time faculty.

Nursing Students

● Nursing students are predominantly female and considerably older than their counterparts in other associate degree and baccalaureate degree programs. The age difference suggests that these students have more family commitments, financial demands, and work-related issues than the average student.

● Financial pressures force these students to take on part- or full-time employment that conflicts with their studies and increases their risk of not completing the program.

● Despite evidence showing that family support and financial security are important to student success, most nursing programs do not provide or do not use counseling services directed toward family members.

● While most nursing students depend on scholarships and loans to go to school, students who received state financial aid for three fiscal years were more likely to complete or persist in the program (83 percent) than students who received financial aid for only one fiscal year (62 percent).

● Cooperative or work-study programs can give these students initial exposure to nursing practice while also partially meeting their financial needs.

Program Administration

● The pool of qualified applications for admission into initial licensure programs is three to four times larger than the number of seats available in those programs.

● Each nursing program invests a substantial amount of faculty and staff time in recruiting qualified applicants, reviewing applications, and selecting applicants for admission.

● Other than GPA and performance on standardized exams, there is little agreement among nursing programs about admission criteria that best predict student success in these programs.

● Nursing programs do not have a systematic way of identifying "at risk" students and have little evidence to show which of the various academic services provided to these students are the most effective.

● Nursing programs do not have a standard way of computing program completion rates to evaluate and compare student success strategies across programs.

Conclusions

Early projections from the Texas Center for Nursing Workforce Studies show that the state's nursing programs will need to increase the number of its graduates by 50 percent by 2010 for the future supply of nurses to meet the expected demand for nurses by 2020.

While improving the statewide completion and persistence rate from 69 percent to 100 percent would almost yield a 50 percent increase in the number of graduates, such an increase in completion and persistence rates is not realistic to expect. To increase the number of graduates by 50 percent, the state must increase both enrollments and improve these rates. Both strategies would require more faculty.

Consequently, the major findings of the study lead to a general conclusion that the state needs to make a substantial investment in preparing, recruiting, and retaining full-time nursing faculty *NOW.* Adding new faculty will not raise completion rates to 100 percent but it will most likely improve them as additional faculty will be able to spend more time with nursing students. Adding new faculty will also increase capacity to serve more students, thereby helping relieve the state's current and predicted nursing shortage.

The number and quality of full-time faculty available to teach is a function of competitive salaries. Salaries which are closer to those of advanced practice nurses will attract and retain more full-time faculty. The state also should provide support to meet the costs of faculty training programs to prepare advanced practice nurses for nurse educator roles and to provide incentives for more graduate students to become nursing faculty rather than advanced practice nurses. The state can improve the completion rates in nursing programs by expanding financial aid opportunities and counseling services in programs. Nursing programs should streamline and centralize administrative processes, formalize student assessment and screening

processes for identifying “at risk” students, and refine program evaluation. These latter strategies require additional funds and faculty time. Individually and collectively, they are insufficient to achieve the necessary increases in registered nurse without substantial investment in programs to increase the number of nursing faculty.

Recommendations

The THECB recommends the following strategies to increase completion rates and the number of graduates from initial licensure programs:

	ACTION TO BE TAKEN BY					
STRATEGIES (High priority strategies are shaded)	Legislature	THECB	Educational Institutions	BNE	TCNWS	Health Care Industry
Faculty Strategies						
1. Increase salaries of new and existing nursing faculty who teach in initial licensure programs. Increases should be implemented incrementally over two biennium with the goal that by 2010, salaries for full-time faculty would be competitive with those of specific full-time positions in nurse practice.	X		X			
2. Provide stipends to full-time graduate nursing students who commit to working as full-time faculty once they have completed their degree programs.	X		X			
3. Cover costs of preparing advanced practice nurses for the nurse faculty role.	X		X			
4. Provide schools additional per capita funding (through the Professional Nursing Shortage Reduction Program) for new graduates from the MSN Nurse Educator Track.	X	X				
Student Strategies						
5. Increase financial aid for students enrolled in initial licensure programs.	X	X				
6. Develop cooperative or “work-study” programs between nursing programs and the healthcare industry.			X	X	X	X
7. Establish a statewide task force to study ways in which the healthcare industry can better partner with nursing programs to increase the number of initial licensure graduates and improve completion rates.		X	X	X	X	X
8. Create a staff position(s) dedicated to providing assistance to students during times of financial and personal crisis.			X			

STRATEGIES (High priority strategies are shaded)	Legislature	THECB	Educational Institutions	BNE	TCNWS	Health Care Industry
Program Administration Strategies						
9. Standardize data sets used by initial licensure programs for (1) student admissions (2) student evaluation and (3) students who drop out of programs. Compile and analyze that data through a central repository.		X	X	X	X	
10. Implement a standard methodology for calculating completion and persistence rates.		X	X	X		
11. Establish an 85 percent completion and persistence rate target for nursing programs. Recognize programs that achieve the target or that show significant progress toward the target.	X	X	X	X		
12. Establish best practices for identifying "at risk" students and promote those practices through annual student success conferences.		X	X			
13. Continue to promote "regionalization" of common instructional functions, interdisciplinary instruction, pooled or shared faculty, accelerated and alternate entry programs, and new clinical instruction models to maximize the use of existing resources and faculty.		X	X	X		X
Other						
14. Study existing and alternate methods of program funding to determine the best incentives for schools to increase on-time completion and licensure passage rates.		X				

Key:

THECB – Texas Higher Education Coordinating Board
BNE – Board of Nurse Examiners for the State of Texas
TCNWS – Texas Center for Nursing Workforce Studies

Background

Nurses are frequently the most visible health care practitioners in a hospital, school, home, or long-term care facility. Registered Nurses (RNs) constitute the largest health care occupation, holding 2.3 million jobs in the United States. According to the Texas Center for Nursing Workforce Studies (TCNWS), Texas has 149,948 RNs residing and practicing in the state as of September 2006. Texas RNs are mostly female (91 percent) and white (75 percent). They have a median age of 47, which is increasing at a rate reported to be more than twice that of all other occupations. The largest percentages of RNs work in hospitals (64.3 percent), home health care settings (5.3 percent), and physician's offices (5 percent).

In recent years, Texas, like many states, has experienced a well-publicized nursing shortage. Many authorities believe the current shortage is driven primarily by demographic changes. General population growth, the rising proportion of people over age 65, and advances in medical technology are expected to greatly accelerate the future demand for patient care services and RNs. *Early projections from the TCNWS show that the state's nursing programs will need to increase the number of its graduates by approximately 50 percent by 2010 for the future supply of nurses to meet the expected demand for nurses by 2020.*

In response to the current and projected need for RNs, the THECB has determined that increasing the number of RN graduates is of sufficient importance to make it a specific target for success in *Closing the Gaps by 2015*, the state's higher education plan. It also published, *Increasing Capacity and Efficiency in Programs Leading to Initial RN Licensure in Texas* (July 2004), which examined the state's ability to produce enough nurses to respond to the state's nursing shortage. From that report and others produced by TCNWS, public officials obtained more information about the complex issues surrounding the supply of and demand for nurses.

In the report, the THECB identified many positive changes in the state's initial licensure programs. At that time, it had recognized that the programs had substantially increased interest in nursing, enrolled additional students, and graduated more of them. THECB also acknowledged that uniform program completion data were not readily available from the nursing programs. In informal conversations with nursing deans, THECB staff reported at the time that the percentage of students completing the nursing program varied significantly among institutions, with health-related institutions reporting more than 90 percent completion rates and other institutions reporting as little as 40 percent completion rates in initial licensure programs. Staff proposed that if standardized data were available, educators could target attrition problems at individual schools and identify best practices among schools with high rates of student success. Board staff concluded that it would study nursing student completion rates further and develop recommendations if warranted.

Origin and Scope of the Study

Perhaps in response to that report, the 79th Legislature directed the THECB to identify, develop, and study strategies for increasing graduation rates from professional nursing programs in this state and determine which of those strategies are likely to be effective**.** The Legislature further directed the Board to make recommendations for implementing effective strategies in a report to the legislature by January 1, 2007. The charge is included as Appendix A.

To defray the cost of the research, the Board formed a task force to conduct the study and to coordinate and lead data collection efforts, analyses, and implementation of recommendations. The Task Force to Increase RN Graduates in Texas (task force) included faculty from five nursing programs in the state, a data director, and representatives from the TCNWS, the Board of Nurse

Examiners for the State of Texas (BNE), Texas Nurses Association (TNA), and the THECB. Task force members are listed in Appendix B.

The scope of the study was limited to "initial licensure programs," which are defined as diploma, associate degree (ADN), and baccalaureate degree (BSN) programs that prepare students for initial licensure as registered nurses. Those programs are described below:

> *Diploma Programs* – traditionally require three years of study at a single-purpose school. In Texas, the state's two diploma programs are administered by hospitals. Diploma programs were not included in this study.
>
> *Associate Degree Programs* (ADN) –traditionally require prerequisite courses and two years of nursing curricula. The vast majority of the state's associate degree programs are located in community colleges.
>
> *Baccalaureate Degree Programs* (BSN) – traditionally require four years of study. The nursing curricula take place during the last two years at a university or academic health science center.

The number of each type of program and the percentage or students enrolled and graduating from them varies considerably.

Initial Licensure Programs* by Type of Nursing Degree

Type of Degree	Number of Programs*	% of Total 2005 Enrollment	% of Total 2005 Graduates
Diploma	2	2%	3%
ADN	56	55%	62%
BSN	26	43%	36%
Universities	*22*	*35%*	*26%*
Health-related Institutions	*4*	*8%*	*10%*
TOTAL	**84**	**100%**	**100%**

Source: Board of Nurse Examiners for the State of Texas

* Number of programs – represents higher education institutions or hospitals that are approved by the BNE to offer a program leading to initial RN licensure as of May 2006

Institutions offering these initial licensure programs are listed in Appendix C.

The study also was limited to measuring the student's success within the initial licensure program. Graduation rates typically reflect the student's success in his or her entire undergraduate education, but, nursing students are admitted to initial licensure programs after they finished their prerequisites (associate degree programs) or Core Curriculum (baccalaureate degree programs) and not immediately upon entering a college or university. Therefore, to determine the success of students enrolled in the two-year nursing curricula, THECB staff calculated "completion rates" as opposed to "graduation rates" for these students. Students who did not complete the program within the two-year period but were continuing in the program in the following fall semester were considered persisters and were included in a "persistence rate." More information about how these rates were calculated is in the "Study Methodology and Definitions" section, which follows.

Study Methodology and Definitions

The Task force's work encompassed two major activities.

The first activity was to answer the question: "What are program completion rates of initial licensure programs?" To answer the question, the THECB asked the state's nursing programs to provide a list of the new students who enrolled in initial licensure programs in Spring 2003, Summer 2003, or Fall 2003. The list excluded any students who transferred from another nursing program or were readmitted to a program after earning nursing course credits prior to Spring 2003. The lists submitted by the programs also excluded enrollees in part-time or alternate entry tracks. The THECB received student data from 68 of the 76 institutions (89 percent response rate) that admitted students during one or more of those three semesters in 2003. The two diploma programs and several programs at independent institutions were not included in the analysis because the THECB did not collect student records for those institutions in 2003.

Once submitted, the names and Social Security numbers of the students were matched against the THECB database of student records and then tracked through academic year 2005. Through this process, the Board could calculate program completion and persistence rates for this cohort of students by school, by five geographic regions, by type of degree program, by ethnicity of the student, and by students' financial aid status. The definitions for these calculations follow:

2003 Nursing Enrollees – the number new full-time students enrolled in the program for the first time in the Spring, Summer, or Fall semester of 2003.

Completion Rate – the number of students in the original 2003 cohort who are reported as graduates by Summer 2005, divided by the original "2003 Nursing Enrollees" cohort.

Persistence Rate – the number of students who did not graduate from the program who are reported as enrolled in the program in Fall 2005, divided by the original "2003 Enrollees" cohort.

Completion & Persistence Rate (*CPR*) – the number of students in the original 2003 cohort who are reported as graduates by Summer 2005 plus the number of students who are reported as enrolled in the program in Fall 2005, divided by the original "2003 Nursing Enrollees" cohort.

The student cohort was also used to determine the median age of nursing students entering the initial licensure programs. The results of that activity are included in the "Completion and Persistence Rates of Nursing Programs" section.

The second activity was an attempt to answer the question: "What are the trends, characteristics and practices of students, faculty and administrators in initial licensure programs that affect student success?" To answer the question, the task force collected data from surveys distributed to program administrators, nursing faculty, and graduating students from initial licensure programs. The survey instruments and responses are included in Appendices D, E, F, and G.

While the surveys asked different questions of administrators, faculty, and graduating students, all respondents were asked about the emphasis for "on-time" completion of the program and the strategies they would advocate to increase completion rates. Information on obstacles to completing the nursing program, helpfulness of services to students in completing the nursing program, and demographic information about themselves was sought from both faculty and students. Faculty and administrators provided information on approaches to identifying "at risk" students, obstacles to faculty in helping students complete the program, and success of

interventions for “at risk” students. Other information requested from program administrators included admission criteria that best predicted program completion, selection processes, use of exit interviews, support from local healthcare agencies, and program statistics. Other information requested from students included the importance of various people in helping them complete the program and reasons why they were successful when others were not.

All but three programs (two community colleges and one university) provided student and faculty responses for a 96 percent program response rate. Administrators from 65 programs responded for an 83 percent response rate.

The following table shows the number of program administrators, faculty and students who provided survey responses.

Number of Survey Respondents

Type of Institution	Number of Programs	Administrators	Faculty	Students
Community College	47	43	774	2,208
University	24	20	253	760
Health-related Institution	4	2	35	168
Total	75	65	1,062	3,136

The results of that activity are included in the section “Practices and Trends that Affect Student Success.”

As a result of these two activities, the THECB compiled key findings and formed conclusions and recommendations for implementing strategies to improve student success in initial licensure programs.

Completion and Persistence Rates of Nursing Programs

Completion and persistence rates vary by data collection region, type of degree program, student ethnicity, and financial aid status.

Statewide Completion and Persistence Rates For Initial Licensure Programs

	2003 Nursing Enrollees	Completers as of Summer 2005	Completion Rate	Non-Completers Enrolled Fall 2005	Persistence Rate	Completions /Persistence Rate (CPR)
By Data Collection Region						
Region 1: West Texas	1,176	631	54%	186	15%	69%
Region 2: South Texas	1,922	1,212	63%	205	11%	74%
Region 3: Gulf Coast	1,657	864	52%	202	12%	64%
Region 4: East Texas	1,059	566	53%	167	16%	69%
Region 5: North Texas	1,880	1,070	57%	241	13%	70%
Statewide	7,694	4,343	56%	1,001	13%	69%
By Type of Institution						
Community College	4,500	2,549	57%	386	9%	65%
Health-related Institution	665	496	75%	54	8%	83%
University	2,529	1,298	51%	561	22%	74%
Total	7,694	4,343	56%	1,001	13%	69%
By Ethnicity and Financial Status						
White	3,995	2,701	68%	481	12%	80%
Black	854	399	47%	156	18%	65%
Hispanic	1,492	917	61%	200	13%	75%
Asian	286	163	57%	54	19%	76%
American Indian	48	33	69%	6	13%	81%
International	148	86	58%	26	18%	76%
Unknown	61	44	72%	8	13%	85%
No Financial Aid	3,109	1,704	55%	328	11%	65%
Received Financial Aid	4,344	2,639	61%	617	14%	75%
Total	7,453	4,343	58%	945	13%	71%

* "2003 Nursing Enrollees" are new full-time students enrolled in the program for the first time in the Spring, Summer or Fall semester of 2003.

** "Completion Rate" is the number of students in the original 2003 cohort who are reported as graduates by Summer 2005, divided by the original "2003 Nursing Enrollees" cohort.

*** "Persistence Rate" is the number of students who did not graduate from the program who are reported as enrolled in the program in Fall 2005, divided by the original "2003 Enrollees" cohort.

*** Completion & Persistence Rate (CPR) *** is the number of students in the original 2003 cohort who are reported as graduates by Summer 2005 plus the number of students who are reported as enrolled in the program in Fall 2005, divided by the original "2003 Nursing Enrollees" cohort.

**** "Received Financial Aid" represents students in the original 2003 cohort who received state financial aid during any one or more semesters in which they were enrolled in the nursing program.

From this cohort of students admitted to initial licensure programs in 2003, THECB staff and the task force members found:

- The statewide completion rate was 56 percent. The statewide persistence rate was 13 percent. The statewide completion and persistence rate (CPR) was 69 percent.

- *About 31 percent of the original 2003 student cohort did not complete the nursing program during the two-year period, and was not enrolled in the program in Fall 2005.*

- CPRs varied widely by program, ranging from 34 percent to 96 percent; 24 percent of the programs had CPRs of 85 percent or better.

- Programs in the South Texas region had slightly better CPRs than programs in the other four regions. CPRs were fairly consistent across all regions of the state, however.

- Health-related institutions had the highest CPR (83 percent), followed by those at universities (74 percent) and community colleges (65 percent). The success of health-related institutions may or may not be attributable to their success in graduating student on time. A previous THECB study showed that these schools have turned away a greater percentage of students (a 50 percent rejection rate) than the other programs at the universities and community colleges. Therefore, their high CPRs may be more a reflection of the selectivity of their admission process than other program factors that may contribute to student success.

- Community colleges had higher completion rates than universities, but the lowest persistence rate of the three types of institutions. The community college completion rate includes 617 graduates (24 percent of all community college completers during the two-year period) from a Licensed Vocational Nurse to Registered Nurse Track. That track is normally completed in one year rather than two years.

- CPRs for White, Black, Hispanic, and Asian nursing students, varied by 15 percent: White students had the highest CPR at 80 percent; Black students had the lowest CPR at 65 percent.

- Students who received state financial aid were more likely to complete on-time or persist in the programs than students who did not receive state financial aid. Further analysis showed that students who received aid for two or more years were more likely to complete on-time or persist in the program (83 percent) than students who received aid during one year (62 percent).

From the data, the task force also found that the median age of a new nursing student was significantly older (26 years) than the average freshman at a community college (20 years), junior at a university (21 years) or health-related institution (24 years). ADN program students were significantly older than BSN program students. The median age of a new ADN program student in most regions of the state was between 28 and 30 years.

Results of this study were compared informally to a similar study of students who first enrolled in initial licensure programs at 13 schools in the Gulf Coast area between Fall 2000 and Summer 2001. That regional study showed that community colleges had a 47 percent on-time completion rate; universities had a 48 percent on-time completion rate; and health-related institutions had a 66 percent on-time completion rate. Over four subsequent semesters, completion rates improved, particularly for universities and health-related institutions. In that study, about 33 percent of the student cohort did not complete the program within the standard time period, plus four additional semesters.

Practices and Trends that Affect Completion Rates

The task force grouped the results from the survey data and trend analyses into three broad categories.

Nursing Faculty

The number and characteristics of faculty teaching in nursing programs is a major factor in determining enrollment capacity and may also be an indication of the quality of instruction.

Current Supply of Nursing Faculty

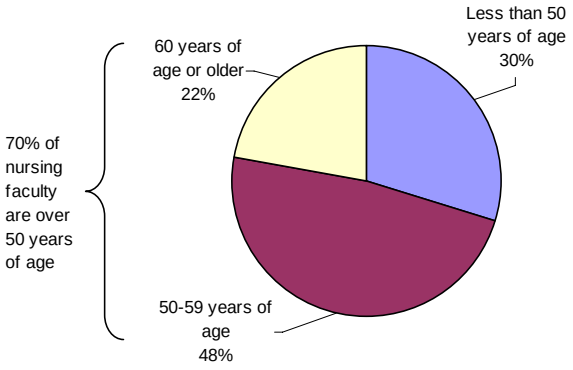
In 2005, 1,579 FTE faculty were employed in initial licensure programs, an 11 percent increase from 2004. Despite this increase, other trends suggest concern about the number of potential faculty to teach in nursing education and the continued quality of instruction in initial licensure programs:

- Over a five-year period, the average class size of initial licensure programs has increased by 22 percent while faculty FTEs have increased by 19 percent.

- The percentage of full-time faculty positions has decreased 10 percent in the last five years while the percentage of part-time faculty positions has increased by 32 percent during the same period. According to a National League for Nursing study (2006), the majority of baccalaureate and higher degree programs and almost half of associate degree programs reported hiring part-time faculty as their primary strategy to compensate for unfilled, budgeted, full-time positions. While this approach allows for greater flexibility, part-time faculty often are not an integral part of the design, implementation, and evaluation of the overall program. And because they typically hold other positions, they are not as available to students as full-time faculty are, and frequently have conflicts between the time commitments required by their teaching and other positions

- Age was also a concern. As indicated below, 70 percent of 1,800 nursing faculty were 50 years of age or older.

All Nursing Faculty* by Age (2004)



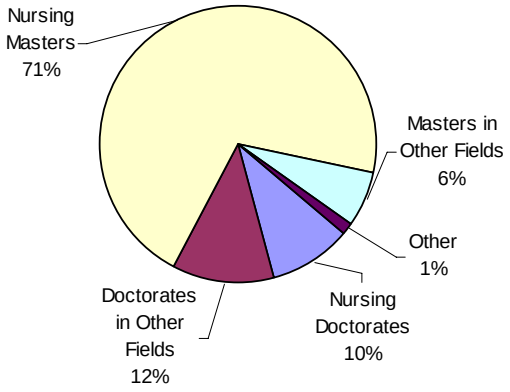
*Includes faculty participating in all levels of nursing education, including those in initial licensure programs.

Source: Texas Center for Nursing Workforce Studies

- *With approximately 1,250 faculty expected to retire within the next five to 15 years, nursing programs will be greatly challenged to replace these faculty and continue to maintain existing capacity. Losing these veteran faculty members also suggests that nursing programs will have an even more difficult challenge in meeting targets for increasing capacity in these programs unless incentives are in place to recruit faculty and streamline the hiring and training processes.*

- In 2005, 77 percent of nursing faculty teaching in initial licensure programs had master's degrees in nursing (71 percent) or in another field (6 percent). Another 22 percent had doctorates in nursing (10 percent) or in another field (12 percent).

Faculty in Initial Licensure Programs by Highest Degree Attained (2005)



Source: Board of Nurse Examiners for the State of Texas

Initial licensure programs rely heavily on master's prepared nurses. A master's degree is the highest degree attained by 89 percent of ADN faculty and 66 percent of BSN faculty.

- *To meet the increased demand for new RNs, nursing programs will need to increase the total number of FTE faculty by 54 percent by 2010. That percentage does not include the number of faculty needed to be replaced due to retirement.*

Future Faculty

In anticipation of the need for approximately 1,250 new faculty to replace retiring faculty in initial licensure programs, the task force examined the state's potential to produce them from its own graduate programs.

The number of students in graduate nursing programs has increased by 35 percent from 1996 to 2005, with the 2005 totals representing a 10-year high. Enrollments in master's level programs increased 34 percent and doctoral programs increased 46 percent during this 10-year period. Despite these increases, nursing students are choosing specialties that do not prepare them for faculty positions:

- Nursing education, a MSN specialization that could more directly indicate student interest in becoming nursing faculty, represented only 5 percent of students enrolled in other master's level programs in 2005. In contrast, advanced practice-based specialists, including clinical nurse specialists, nurse practitioners, nurse midwives and nurse anesthetists, represented 95 percent (583 students) of the students enrolled in master's level programs in 2005.

- Student interest in these advanced practice specializations most likely reflects the perceived status of those practitioners within nursing, the demand for advanced practice nurses, and the salaries they are paid.

- Enrollment and graduation data suggest that nursing programs will have a difficult time recruiting potential faculty from the large percentage of master's degree graduates who are choosing advanced practice-based specialties. Furthermore, if programs are successful in finding faculty from those graduates in advanced practice-based specialties, the new hires are less likely to have the instructional skills needed to teach students. Providing those basic skills will most likely add to the cost of the programs.

Faculty Salaries

Current data show that nursing faculty salaries (base pay excluding fringe benefits and any incentives) do not compare favorably with salaries earned by nurses in practice.

2005 Median Salaries for Full-time Nursing Faculty At Public Institutions

Rank	Number of Faculty	9-month Salaries	12-month Salaries (Adjusted)*
Community Colleges			
Professor	13	$40,592	$54,123
Associate Professor	25	$43,261	$57,681
Assistant Professor	38	$37,009	$49,345
Instructor	212	$41,089	$54,785
Lecturer	19	$39,263	$52,351
No Ranking System	253	$41,552	$55,402
All Ranks	560	$41,129	$54,839
Universities			
Professor	34	$79,391	$105,854
Associate Professor	68	$61,749	$ 82,332
Assistant Professor	78	$54,038	$ 72,051
Instructor	1	$50,000	$ 66,666
Other Faculty	345	$45,500	$ 60,666
All Ranks	526	$50,000	$ 66,666

Rank	Number of Faculty	9- and 12-month Salaries **
Health-Related Institutions		
Professor	25	$105,019
Associate Professor	30	$ 84,985
Assistant Professor	11	$ 71,500
Other Faculty	74	$ 69,398
Teaching Assistant	1	$ 48,000
All Ranks	141	$ 81,200

*9-month salaries are adjusted to 12-month salaries for purposes of comparing them to practice salaries.

**Health-related institutions have both 9-month and 12-month salaries for nursing faculty.
Source: Institutional data reported to the Texas Higher Education Coordinating Board

The data show that nursing faculty are paid salaries far below what they can earn in practice. At least 50 percent of all full-time faculty earn less than $60,000 annually (adjusted to a 12-month salary.) Data from the U.S. Department of Labor and other sources show that average annual salaries of a nurse practitioners in Texas range from $69,745 to $78,784, with a mean salary of $73,150. The Dallas Fort Worth Hospital Council, representing 70 hospitals, reported median annual salaries for master's-prepared nurses ranging from $60,000 for a nurse educator to $83,200 for a nurse practitioner. Additional salary comparisons are included in the THECB publication *Increasing Capacity and Efficiency in Programs Leading to Initial RN Licensure in Texas* (2004).

Survey results also reflected the critical need for nursing faculty and verified some of the trends discussed previously in this section. Some students reported the need for faculty training. Other students recognized the need for higher faculty salaries. One respondent suggested providing incentives for BSN nurses to get master's degrees and thereby become eligible to teach in initial licensure programs. Administrators and faculty said that advanced practice nurses were most likely hired as part-time faculty. That reliance on part-time faculty placed most of the burden of course responsibilities on full-time faculty and required that full-time and seasoned faculty provide extensive support in classroom and clinical teaching, testing and evaluation, and other teaching competencies. They suggested that all master's degree programs put more emphasis on educator preparation and that financial incentives be used to encourage master's level students into nurse educator tracks. Using BSN nurses as "faculty extenders" was another strategy suggested.

Nursing Students

Financial and personal support

Survey results verified that most students in nursing programs depend on scholarships and loan programs to finance their studies, but, nursing students incur many more expenses than tuition and fees. Nursing programs require a large number of specialized textbooks, uniforms, liability insurance, fees for criminal background checks, achievement testing, etc. Most students enrolled in nursing programs are employed to help finance these costs as well as their personal and family needs, including living expenses, child care, and health benefits for themselves and their families. *About 58 percent of ADN students and 30 percent of BSN students reported having children.*

Program administrators, faculty, and students agreed that students need more financial support in the form of scholarships, grants, and loans to help pay expenses. The eligibility requirements for financial aid often prevent needy students from getting it. For a large and growing number of students, the major barrier to staying in the program and graduating is the students' need to work to finance their personal and family needs. Approximately 67 percent of students enrolled in associate degree nursing programs (ADN) and 70 percent of enrolled in baccalaureate degree nursing programs (BSN) worked while attending school; 52 percent of ADN students and 48 percent BSN worked three or more semesters while enrolled in nursing programs. *A major reason for students dropping out of programs was not poor grades but the need to provide for their families, and to deal with family issues and or illnesses. When a student drops out of a program for academic reasons, the root cause is often working too much, which does not allow enough time for studying.*

Not surprising then, both faculty and students reported that "juggling work schedules around coursework, "juggling coursework with family obligations," and "dealing with family conflict/crisis" were moderate to major challenges for students in completing the program. *About 87 percent of ADN directors and 72 percent of BSN deans or directors reported that counseling for family members was not used or was not available as an intervention for "at risk" students.* And 54

percent of ADN directors reported that having adequate resources to refer students with personal problems was a moderate to major problem.

The necessity of working and its impact on student success required THECB staff and task force members to also consider other financial aid models for supporting students while they are in school. THECB has collected data which supports the idea of work-study programs. Currently, state work-study programs constitute only a tiny fraction of state financial aid. About 72 percent of ADN directors reported that on-campus employment was not used or was not available as an intervention for "at risk" students. Yet these programs have been shown to be attractive in various ways. Work-study programs can be cost effective because costs are shared between the employer and the state. Work-study programs are also attractive because students tend to do better academically than those on other types of financial aid. In one study of electrical engineer students, students receiving financial aid through work/study programs graduated in six years at a higher rate than those receiving other types of financial aid. Work-study programs can be attractive to policy makers because they can be designed to address specific social issues of broad public concern. For example, a portion of increased work-study funds could be earmarked for college students interested in nursing and who would be eager to work in hospitals with high nurse vacancy rates. A "co-op" version of the work-study model would have students attending school for one semester, working for pay in a health care facility during the next semester, and then returning to school to repeat the cycle until they complete the program. The disadvantage of this particular model is that it may take students longer to graduate.

Academic Support

Most nursing programs have student advising and academic services that use both staff and faculty time and effort. Although there was some agreement across program administrators and faculty on factors that place students "at risk" for not graduating, almost no program claimed to have a system to identify "at risk" students. Program administrators and faculty identified working with a faculty or nurse mentors, participation in study groups, and supplementary classes/tutoring as interventions that were helpful to these students. However, programs could not identify which of these services best helped students to succeed.

Both faculty and students reported that nursing lecture courses were moderate to large challenges for students. Developing study skills, test-taking skills, and time-management skills were also considered major challenges.

All respondents agreed that faculty had workloads and student-to-teacher ratios that prevented faculty from being able to offer academic services much less evaluate them to see which worked best. Approximately 70 percent of ADN directors reported that lack of incentives for faculty (e.g., release time, financial) were potential obstacles in helping students complete the program. Student-to-teacher ratios were higher among programs with CPRs less than 85 percent than those programs with CPRs of 85 percent or better.

Program administrators and faculty suggested funding academic support services (including test taking and time management programs) and teaching assistants/tutors, and developing programs to identify and provide services to at risk students as possible strategies for increasing student success.

Program Content and Administration

Applications and Admission Practices

The state's nursing programs have been successful in attracting qualified applicants. Applications increased by 135 percent from 1997 to 2005 and increased by 94 percent since 2001. The applicant pool is now three to four times larger than the number of seats available in initial licensure programs.

Although nursing programs differ in how they apply admission criteria that they think predict success in their program, almost all of them request the same information from applicants. Most use Grade Point Averages (overall and in pre-requisite courses) and some type of standardized pre-entrance examination. BSN programs, and programs with CPRs of 85 percent or higher, are more likely than ADN programs and programs with lower CPRs to think that applicant interviews predict success.

Most nursing programs have an extensive applicant review/admission process that requires intensive faculty and staff time and effort. Most programs use some form of point/weighting system to rank and select the best qualified applicants. Because of a lack of standardization of admission criteria between programs (e.g. some programs require interviews, and entrance exams, while others do not) qualified students who are not admitted to one program may be unable to complete admission requirements to another program in a timely manner.

In light of increasing workforce demand, the task force and THECB staff discussed whether or not nursing programs should rethink the idea of "best qualified" in determining benchmarks for admission. Perhaps the focus should be on the "most likely to be licensed." Such a new definition may improve completion rates, but may also emphasize student characteristics and other criteria that would disadvantage the very students targeted in *Closing the Gaps*. Despite these concerns, the idea of redefining "best qualified" is worth further discussion and study.

Program administrators and faculty suggested regionalized and/or shared admission "centers" to ensure that "the best qualified students" are admitted to initial licensure programs.

Teaching and Testing Strategies

Program administrators, faculty, and students suggested that smaller student-to-faculty ratios would increase the completion rates for these programs. Many responders suggested smaller ratios for classroom courses (30:1 ratios) and clinical experiences (6:1 rather than 10:1 ratios) to provide students with more face-to-face time with faculty.

Simulation centers and the use of simulation technology were identified as one way to help students develop the clinical competencies needed for safe practice and to ease the problem of finding an adequate number and type of clinical learning experiences for students. Both faculty and students found nursing skills labs a good way to learn clinical skills and thought that schools could use more of this type of equipment and technology for this purpose. Funding new simulation labs and regional learning labs was suggested as one way to overcome facilities and equipment problems and the shortage of clinical placement sites.

Faculty and students thought that the use of computers and computer technology to support teaching helped students. Students reported that making lecture notes available on the Internet and using audio-visual support in lectures and labs were particularly helpful. Faculty and students

commented that on-line and Internet classes were also helpful to students in learning the nursing curriculum and eased their scheduling conflicts.

Nursing faculty thought that orientation programs conducted prior to entry into the initial licensure program were much more helpful to students than the students thought they were. This may be an area for improvement or additional study.

Respondents proposed various ways of improving student success by providing, in some cases, longer and shorter nursing programs. Examples of these suggestions include more part-time study options, greater flexibility in course sequencing, fast-track programs for second degree students, week-end only study, and eliminating programs with small numbers of graduates with redistribution of their funds to programs with larger numbers.

Program Evaluation

Students are often required to pass a standardized exit exam to graduate from the program. The tests are normally administered in the last semester of the program and student are often notified late in the semester that their graduation will be delayed one or more subsequent semesters until they can pass the exit exam. Students often complain that this late assessment is unfair and does not always predict how well they will perform on the national licensure exam. Other nursing programs have used these kinds of tests and other evaluation tools earlier in the curriculum to diagnose student deficiencies, ensure student success and otherwise, and counsel students into other vocations when necessary.

Over 60 percent of nursing programs conducted exit interviews with students who left the program without graduating.

Over 60 percent of all respondents indicated that there is only a moderate emphasis on “on-time” completion of the program. Administrators and faculty at programs with an 85 percent or higher CPR placed heavier emphasis on “on-time” completion than did faculty at programs with lower rates.

When asked how the program computed completion rates, program administrators gave very different answers. Their answers reveal that there is no standard or uniform formula for calculating completion rates. Program administrators and faculty identified the need to use a standardized formula for computing this rate so that programs can be evaluated on how well they respond to “at risk” students and how well they are meeting the need for more RNs. Not having a formula makes it impossible to know where to look for best practices.

Other Issues

Faculty and students suggested that information about nursing and its challenges and rewards be given to students in elementary school so that they can plan to develop the critical thinking and science and math skills needed to be successful in nursing programs. As one faculty member pointed out “Fix/finalize the School Finance Plan. Our students are ill prepared in critical thinking, math, science…Fix it.”

Most students also thought that having information about current licensure pass rates of individual schools would have influenced where they would have applied to attend nursing school.

One of the most telling questions in the survey was the last one posed to graduating students: "When comparing yourself to students who dropped out of the program, why do you think you completed the nursing program while others did not?" In many ways, the student agreed or strongly agreed with typical academic responses: "I had better academic preparation," "I had natural strengths in the related subjects" and "I worked harder to learn and to get good grades." Other responses were more surprising. Approximately 60 percent of ADN and BSN students agreed or strongly agreed that self confidence and the support of family were important factors to their success. Another 53 to 61 percent of students reported that the ability to develop a support network also was key. Those responses suggest that so much of ensuring student success is a combination of both academic and non-academic factors. How nursing programs are able to address and balance those two factors will determine whether the state will be able to meet the workforce demand for new nurses and the goals of *Closing the Gaps*.

Conclusions

Early projections from the Texas Center for Nursing Workforce Studies show that the state's nursing programs will need to increase the number of its graduates by 50 percent by 2010 for the future supply of nurses to meet the expected demand for nurses by 2020.

While improving the statewide completion and persistence rate from 69 percent to 100 percent would almost yield a 50 percent increase in the number of graduates, such an increase in completion and persistence rates is not practical to expect. To increase the number of graduates by 50 percent, the state must increase both enrollments and improve these rates. Both strategies would require more faculty.

Consequently, the major findings of the study lead to a general conclusion that the state needs to make a substantial investment in preparing, recruiting, and retaining full-time nursing faculty *NOW.* Adding new faculty will not raise completion rates to 100 percent but it will most likely improve them as additional faculty will be able to spend more time with nursing students. Adding new faculty will also increase capacity to serve more students, thereby helping relieve the state's current and predicted nursing shortage.

The number and quality of full-time faculty available to teach is a function of competitive salaries. Salaries which are closer to those of advanced practice nurses will attract and retain more full-time faculty. The state also should provide support to meet the costs of faculty training programs to prepare advanced practice nurses for nurse educator roles and to provide incentives for more graduate students to become nursing faculty rather than advanced practice nurses.

The state can improve the completion rates in nursing programs by expanding financial aid opportunities and counseling services in programs. Nursing programs should streamline and centralize administrative processes, formalize student assessment and screening processes for identifying "at risk" students, and refine program evaluation. These latter strategies require additional funds and faculty time. Individually and collectively, they are insufficient to achieve the necessary increases in registered nurse without substantial investment in programs to increase the number of nursing faculty.

List of Sources

American Association of Colleges of Nursing

Board of Nurse Examiners for the State of Texas

National League for Nursing

Texas Schools of Nursing

Texas State Department of Health. Texas Center for Nursing Workforce Studies

U.S. Census Bureau

U.S. Department of Labor. Bureau of Labor Statistics

U.S. Health Resources Service Administration. Bureau of Health Professions

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Appendix A

Charge to the Texas Higher Education Coordinating Board

Sec. 61.96261. STRATEGIES FOR INCREASING GRADUATION RATES**.**

(a) The board shall:

(1) identify, develop, and study strategies for increasing graduation rates from professional nursing programs in this state; and

(2) determine which of those strategies are likely to be effective.

(b) Not later than January 1, 2007, the board shall report to the legislature concerning the results of the study conducted under Subsection (a). The report must include the board's recommendations for implementing effective strategies for increasing graduation rates from professional nursing programs.

(c) The board shall use existing resources to perform duties imposed under this section.

(d) This section expires June 1, 2007.

Appendix B

Task Force Membership

West Texas	**Leslie Mayrand, PhD, RN, CNS** Region 1 Project Director, Task Force Chair Professor and Head Department of Nursing Angelo State University
	Justin Louder, MA Region 1 Project Coordinator Part-Time Lecturer Department of Nursing Angelo State University
South Texas	**Cheryl Ross Staats, MSN, RN, APRN, BC** Region 2 Project Director Associate Professor/Clinical Department of Acute Nursing Care University of Texas Health Science Center at San Antonio
North Texas	**Ann Powers-Prather, PhD, RN** Region 5 Project Director Coordinator of Research and Evaluation A.D. Nursing Program El Centro College
Gulf Coast	**Mary Yoho, PhD, RN (served through August 31, 2006)** Region 3 Project Director Director of Nursing Tomball College
East Texas	**Glenda Walker, DSN, RN** Region 4 Project Director Director School of Nursing Stephen F. Austin State University
Data Director	**Carolyn L. Cason, PhD, RN** Project Data Director Professor Associate Dean and Director, Center for Nursing Research Associate, Center for Hispanic Studies in Nursing and Health School of Nursing University of Texas at Arlington

Members At-Large

Texas Nurses Association	**Wanda Douglas, MSN, RN (served through August 31, 2006)** Education Director Texas Nurses Association
Board of Nurse Examiners	**Mary Beth Thomas MSN, RN** Director of Nursing Practice/Education Texas Board of Nurse Examiners
	Janice I. Hooper, PhD, RN Nursing Consultant for Education Texas Board of Nurse Examiners
Texas Center for Nursing Workforce Studies	**Aileen Kishi, PhD, RN** Program Director Texas Center for Nursing Workforce Studies Department of State Health Services, Center for Health Statistics
	Nora E. Douglas, PhD(c), MA Program Specialist Texas Center for Nursing Workforce Studies Department of State Health Services, Center for Health Statistics
Texas Higher Education Coordinating Board	**Chris Fowler, MPA** Program Director Academic Affairs and Research Division Texas Higher Education Coordinating Board
	Camille Pridgen, EdD, MT(ASCP)SBB Program Director Graduate and Professional Education Health Professions Specialist Division of Academic Affairs and Research Texas Higher Education Coordinating Board

Appendix C

Institutions Offering Initial Licensure Programs in Texas

(As of May 2006)

Diploma Programs (2)

Baptist Health System (San Antonio)

Covenant School of Nursing (Lubbock)

ADN Programs (56)

Alvin Community College
Amarillo College
Angelina College
Angelo State University
Austin Community College
Blinn College
Brookhaven College
Central Texas College
Cisco Junior College-Generic/LVN-to-ADN
College of the Mainland
Collin County Community College
Cy-Fair College (NHMCCD)
Del Mar College
El Centro College
El Paso Community College
Galveston College
Grayson County College
Houston Baptist University
Houston Community College System
Howard College
Kilgore College
Kingwood College (NHMCCD)
Lamar University at Beaumont
Lamar State College – Orange
Lamar State College – Port Arthur
Laredo Community College
Lee College
McLennan Community College
Midland College
Montgomery College (NHMCCD)
Navarro College
North Central Texas College
North Harris Montgomery Community College
Northeast Texas Community College
Odessa College
Panola College
Paris Junior College
San Antonio College
San Jacinto College – Central
San Jacinto College South
South Plains College
South Texas College
Southwestern Adventist University
St. Philip's College
Tarrant County College
Temple College
Texarkana College
Tomball College (NHMCCD)
Trinity Valley Community College
Tyler Junior College
UT at Brownsville & TSMC
Vernon College
Victoria College
Weatherford College
Wharton County Junior College

BSN Programs (26)

Patty Hanks Shelton School of Nursing
(Formerly Abilene Intercollegiate)
Baylor University
East Texas Baptist University
Houston Baptist University
Lamar University at Beaumont
Midwestern State University
Prairie View A&M University
Southwestern Adventist University
Stephen F. Austin State University
Tarleton State University
Texas A&M International University
Texas A&M University at Corpus Christi
Texas Christian University
Texas Tech University HSC
Texas Woman's University
University of Mary Hardin Baylor
UT at Arlington
UT at Austin (also Alternate Entry-MSN program)
UT at El Paso
UT at Tyler
UTHSC at Houston
UTHSC at San Antonio
UT Medical Branch at Galveston
UT Pan American
University of the Incarnate Word
West Texas A&M University

Appendix D

Program Administrator Survey

NURSING PROGRAM ADMINISTRATOR SURVEY

School Code: | | | | | | |

I. Admission Criteria

1. Generally speaking, of the admission criteria that you use, which are the most predicitive of a student's ability to complete the nursing program?

	Not Used	Never Predictive	Sometimes Predictive	Often Predictive	Always Predictive
Minimum ACT or SAT score	O	O	O	O	O
Minimum GPA	O	O	O	O	O
Overall GPA in degree plan	O	O	O	O	O
GPA of pre-requisite courses	O	O	O	O	O
GPA of science courses completed in degree plan	O	O	O	O	O
Pre-Entrance Exams	O	O	O	O	O
HESI	O	O	O	O	O
NET	O	O	O	O	O
TSI (Texas Success Initiative)	O	O	O	O	O
Other:	O	O	O	O	O
Specific grades in science and/or math courses	O	O	O	O	O
High school advanced placement courses	O	O	O	O	O
Pre-requisite courses	O	O	O	O	O
Number of courses completed in the degree	O	O	O	O	O
Number of hours completed at institution offering the nursing program	O	O	O	O	O
Letters of recommendation	O	O	O	O	O
Essay	O	O	O	O	O
Interview	O	O	O	O	O
Prior work experience (LVN-RN applicants)	O	O	O	O	O
Prior work experience (EMT applicants)	O	O	O	O	O
Number of times applicant has applied and met minimum requirements	O	O	O	O	O
Other:	O	O	O	O	O

2. Of the admission selection processes, which best describes the one used by your program (Please check **ONLY** one)?
   - ☐ All applicants that meet minimum standards are offered admission.
   - ☐ Use a point/weighting system to rank and select most qualified applicants.
   - ☐ Use a random/lottery system to select from applicants that meet admission standards.
   - ☐ Use date application was submitted to select from applicants that meet admission standards.
   - ☐ Other: _____

3. Do you think that your program should be more selective in choosing applicants for your nursing program?
   O Yes O No

Comments:

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School Code:

II. Students who are at-risk for not graduating from the program

4. Generally speaking, how does your program identify students who are at risk for not graduating from the nursing program? (Mark all that apply)

- O Fail a **nursing** course and repeat it
- O Perform poorly on tests
- O Repeatedly miss class (absenteeism)
- O Have an overall GPA that is below an acceptable level
- O Are readmitted to the program
- O Fail key course requirements (e.g. dosage calculation or pharmacology exam)
- O Receive a low rating on one or more clinical days
- O Have a high level of financial need
- O Have a marginal family support system
- O Have a demographic profile similar to other students at-risk
- O Have underdeveloped English language skills
- O Are non-traditional students (students returning to school later in life; first generation college student)
- O Have no systematic way to identify students at-risk

Other factors that contribute to "at-risk" [ ]

5. How successful do you believe the following interventions are for students who are at-risk for not graduating from the program?

	Not Used	Not Successful	A little Successful	Very Succesful	Extremely Successful
Additional academic advising	O	O	O	O	O
Participation in study groups	O	O	O	O	O
Working with faculty or nurse mentor	O	O	O	O	O
Working with a peer	O	O	O	O	O
Supplementary classes/tutoring	O	O	O	O	O
Personal counseling	O	O	O	O	O
Counseling for family members	O	O	O	O	O
On-campus employment	O	O	O	O	O
Other:	O	O	O	O	O

III. Other

6. Does the nursing program conduct exit interviews with students who are withdrawing permanently from the program?

O Yes O No

Comments:

School Code: | | | | | | |

7. Please indicate how local hospitals/other healthcare organizations participate in the nursing program (Check all that apply):

Local hospitals/healthcare organizations provide...

financial support to operate my program. O Yes O No
qualified nurses as adjunct faculty. O Yes O No
qualified nurses as clinical preceptors. O Yes O No
financial support for my students. O Yes O No
additional instruction/training opportunities for my students. O Yes O No
additional opportunities for their employees to become nurses through my program. O Yes O No
Other:_____ O Yes O No

8. How challenging are these potential obstacles **for faculty** in helping students complete the nursing program?

	Not a challenge	A small challenge	A moderate challenge	A large challange
Having adequate resources to refer students with academic problems	O	O	O	O
Ease of referral process to resources for students with academic problems	O	O	O	O
Having adequate resources to refer students with personal problems	O	O	O	O
Ease of referral process to resources for students with personal problems	O	O	O	O
Having workloads that allow time to help students	O	O	O	O
Having adequate faculty to student ratios	O	O	O	O
Having the support of the Dean/Director for retention efforts	O	O	O	O
Having the support of University/College administration for retention efforts	O	O	O	O
Lack of incentives (e.g. release time, financial) for retention efforts	O	O	O	O

9. Have you had to cut programs that were benefical to student success?

O Yes O No

If yes, what programs?

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School Code:

10. How much emphasis does your nursing program place on students graduating on time? Choose the number closest to your answer.

No emphasis		Somewhat of an emphasis			Major emphasis
O 0	O 1	O 2	O 3	O 4	O 5

11. Given the opportunity to talk with members of the Texas Legislature, what strategies to increase nursing graduates would you advocate?

12. Initial RN licensure program statistics:

	ADN	BSN
Number of full-time faculty in program - Fall 2004		
Number of part-time faculty in program - Fall 2004		
Filled FTE faculty positions in the program - Fall 2004		
Vacant FTE faculty positions in the program - Fall 2004		
FTE students enrolled - Fall 2004		
Graduates between 9/1/2004 and 8/31/2005		
Percentage of gradates passing the NCLEX on the first attempt between 9/1/2004 and 8/31/2005		
FTE faculty exclusively dedicated to providing support services - Fall 2004		
FTE staff exclusively dedicated to providing support services - Fall 2004		
Average monthly full-time program faculty salary of faculty teaching prelicensure students (including stipends and other incentives) - Fall 2004		

Appendix E

Faculty Survey

school

Nursing Faculty Survey

1. Generally speaking, how challenging are these potential obstacles **for students** in completing the nursing program at your institution?

Passing	Not a challenge	A small challenge	A moderate challenge	A large challenge
pre-requisite science/math courses	O	O	O	O
nursing lecture courses	O	O	O	O
clinical courses	O	O	O	O
Accessing				
nursing faculty	O	O	O	O
instructional materials & study aids	O	O	O	O
Developing study skills				
study skills (generally)	O	O	O	O
library skills	O	O	O	O
test-taking skills	O	O	O	O
time management skills	O	O	O	O
computer skills	O	O	O	O
Finding				
financial support to go to school	O	O	O	O
transportation to school	O	O	O	O
child care	O	O	O	O
time to study	O	O	O	O
Managing				
ethnic/racial differences	O	O	O	O
gender differences	O	O	O	O
age differences between fellow students	O	O	O	O
age differences between faculty and students	O	O	O	O
Juggling work schedules around coursework	O	O	O	O
Dealing with family conflict/crises	O	O	O	O
Juggling coursework with family obligations	O	O	O	O
Responsibilities related to social activities				
band/cheerleader	O	O	O	O
fraternity/sorority	O	O	O	O
professional club (e.g. SNA)	O	O	O	O
athletics	O	O	O	O
ROTC	O	O	O	O

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school

2. How challenging are these potential obstacles **for faculty** in helping students complete the nursing program?

	Not a challenge	A small challenge	A moderate challenge	A large challenge
Having adequate resources to refer students with academic problems	O	O	O	O
Ease of referral process to resources for students with academic problems	O	O	O	O
Having adequate resources to refer students with personal problems	O	O	O	O
Ease of referral process to resources for students with personal problems	O	O	O	O
Having workloads that allow time to help students	O	O	O	O
Having adequate faculty to student ratios	O	O	O	O
Having the support of the Dean/Director for retention efforts	O	O	O	O
Having the support of University/College administration for retention efforts	O	O	O	O
Lack of incentives (e.g. release time, financial) for retention efforts	O	O	O	O

3. How helpful are these services to **students** in completing the nursing program?

	Not available/applicable	Not helpful	Somewhat helpful	Very helpful	Extremely helpful
Orientation program/workshop prior to starting nursing course sequence	O	O	O	O	O
Developmental (remedial) education	O	O	O	O	O
English as a Second Language	O	O	O	O	O
Specialized developmental courses:					
test taking skills	O	O	O	O	O
time management skills	O	O	O	O	O
study skills	O	O	O	O	O
library skills	O	O	O	O	O
Specialized laboratories:					
math lab	O	O	O	O	O
reading lab	O	O	O	O	O
nursing skills lab	O	O	O	O	O
computer lab	O	O	O	O	O
writing lab	O	O	O	O	O
Library	O	O	O	O	O

school

3. How helpful were these services to **students** in completing the nursing program? (continued)

	Not available/applicable	Not helpful	Somewhat helpful	Very helpful	Extremely helpful
Academic Assistance:					
learning style assessment testing	O	O	O	O	O
teaching assistants	O	O	O	O	O
academic advising	O	O	O	O	O
tutoring by faculty/staff	O	O	O	O	O
peer mentoring	O	O	O	O	O
oranized study groups	O	O	O	O	O
mentor program	O	O	O	O	O
Computer based aids (generally):					
lecture notes published	O	O	O	O	O
audio-visual support in lectures and laboratories	O	O	O	O	O
access to lectures on the internet	O	O	O	O	O
discussion chat rooms	O	O	O	O	O
Personal/Family support:					
mental health counseling	O	O	O	O	O
student organizations	O	O	O	O	O
child care	O	O	O	O	O
job placement assistance	O	O	O	O	O
ombudsman	O	O	O	O	O
disabled student support	O	O	O	O	O
big sister/brother program	O	O	O	O	O
transportation	O	O	O	O	O
Financial Aid					
scholarship	O	O	O	O	O
student loans	O	O	O	O	O
employment tuition reimbursement	O	O	O	O	O
other financial aid:	O	O	O	O	O

If other financial aid used, please specify:

school

4. Generally speaking, how does your program identify students who are at risk for not graduating from the nursing program? (Mark all that apply)

- O Fail a **nursing** course and repeat it
- O Perform poorly on tests
- O Repeatedly miss class (absenteeism)
- O Have an overall GPA that is below an acceptable level
- O Are readmitted to the program
- O Fail key course requirements (e.g. dosage calculation or pharmacology exam)
- O Receive a low rating on one or more clinical days
- O Have a high level of financial need
- O Have a marginal family support system
- O Have a demographic profile similar to other students at-risk
- O Have underdeveloped English language skills
- O Are non-traditional students (students returning to school later in life; first generation college student
- O Have no systematic way to identify students at-risk

Other factors that contribute to "at-risk"

5. Of the following interventions for students who are at-risk for not graduating, which are the most successful in helping them complete the program?

	Not used	Not successful	A little successful	Very successful	Extremely successful
Additional academic advising	O	O	O	O	O
Participation in study groups	O	O	O	O	O
Working with faculty or nurse mentor	O	O	O	O	O
Working with a peer	O	O	O	O	O
Supplementary classes/tutoring	O	O	O	O	O
Personal counseling	O	O	O	O	O
Counseling for family members	O	O	O	O	O
On-campus employment	O	O	O	O	O

Other interventions

6. What other strategies could be used to better help students who are at-risk for not graduating, including students who repeat a course, to succeed in the nursing program?

school

7. Are there any programs or services not available at your nursing program that you wish were available?

O Yes O No

8. If yes, what services?

9. How much emphasis does your nursing program place on students graduating on time? Choose the number closest to your answer.

No emphasis		Somewhat of an emphasis			Major emphasis
O 0	O 1	O 2	O 3	O 4	O 5

10. Given the opportunity to talk with members of the Texas Legislature, what strategies to increase nursing graduates would you advocate?

11. Finally, please tell us about yourself:

Age: O under 25 O 26-30 O 31-35 O 36-40 O 41-45 O 46-50 O 51-55 O 56-60 O 60+

Gender: O female O male

Ethnicity: O White (not hispanic) O African-American O Hispanic O Asian O Other

Years of teaching experience

Teaching Role
O Clinical faculty only
O Lecturer only
O Clinical faculty and lecturer

Thank you for completing the survey. You've been a great help to us!

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Appendix F

Student Survey

school

Nursing Student Survey

1. Generally speaking, how challenging are these potential obstacles **for you** in completing the nursing program at your institution?

Passing	Not a challenge	A small challenge	A moderate challenge	A large challenge
pre-requisite science/math courses	O	O	O	O
nursing lecture courses	O	O	O	O
clinical courses	O	O	O	O
Accessing				
nursing faculty	O	O	O	O
instructional materials & study aids	O	O	O	O
Developing study skills				
study skills (generally)	O	O	O	O
library skills	O	O	O	O
test-taking skills	O	O	O	O
time management skills	O	O	O	O
computer skills	O	O	O	O
Finding				
financial support to go to school	O	O	O	O
transportation to school	O	O	O	O
child care	O	O	O	O
time to study	O	O	O	O
Managing				
ethnic/racial differences	O	O	O	O
gender differences	O	O	O	O
age differences between fellow students	O	O	O	O
age differences between faculty and students	O	O	O	O
Juggling work schedules around coursework	O	O	O	O
Dealing with family conflict/crises	O	O	O	O
Juggling coursework with family obligations	O	O	O	O
Responsibilities related to social activities				
band/cheerleader	O	O	O	O
fraternity/sorority	O	O	O	O
professional club (e.g. SNA)	O	O	O	O
athletics	O	O	O	O
ROTC	O	O	O	O

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school

2. Generally speaking, how important were these people in helping **you** complete the nursing program?

	Not important	Somewhat important	Very important	Extremely important
Classroom faculty	O	O	O	O
Clinical faculty	O	O	O	O
Clinical preceptors/ Nurse mentors	O	O	O	O
Dean/Director of program	O	O	O	O
Academic advisor	O	O	O	O
Mental Health Counselor	O	O	O	O
Teaching assistants	O	O	O	O
Other nursing students	O	O	O	O
Spouse/Partner	O	O	O	O
Parent/Guardian	O	O	O	O
Other family member	O	O	O	O
Friends	O	O	O	O
Other	O	O	O	O

3. How helpful were these services to **you** in completing the nursing program?

	Not available/applicable	Not helpful	Somewhat helpful	Very helpful	Extremely helpful
Orientation program/workshop prior to starting nursing course sequence	O	O	O	O	O
Developmental (remedial) education	O	O	O	O	O
English as a Second Language	O	O	O	O	O
Specialized developmental courses:					
Test taking skills	O	O	O	O	O
Time management skills	O	O	O	O	O
Study skills	O	O	O	O	O
Library skills	O	O	O	O	O
Specialized laboratories:					
Math lab	O	O	O	O	O
Reading lab	O	O	O	O	O
Nursing skills lab	O	O	O	O	O
Computer lab	O	O	O	O	O
Writing lab	O	O	O	O	O
Library	O	O	O	O	O

school

3. How helpful were these services to **you** in completing the nursing program? (continued)

	Not available/applicable	Not helpful	Somewhat helpful	Very helpful	Extremely helpful
Academic Assistance:					
Learning style assessment testing	O	O	O	O	O
Teaching assistants	O	O	O	O	O
Academic advising	O	O	O	O	O
Tutoring by faculty/staff	O	O	O	O	O
Peer mentoring	O	O	O	O	O
Organized study groups	O	O	O	O	O
Mentor program	O	O	O	O	O
Computer based aids (generally):					
Lecture notes published	O	O	O	O	O
Audio-visual support in lectures and laboratories	O	O	O	O	O
Access to lectures on the internet	O	O	O	O	O
Discussion chat rooms	O	O	O	O	O
Personal/Family support:					
Student organizations	O	O	O	O	O
Child care	O	O	O	O	O
Job placement assistance	O	O	O	O	O
Ombudsman	O	O	O	O	O
Disabled student support	O	O	O	O	O
Big Sister/Brother program	O	O	O	O	O
Transportation	O	O	O	O	O
Financial Aid					
Scholarship	O	O	O	O	O
Student loans	O	O	O	O	O
Employment tuition reimbursement	O	O	O	O	O
Other financial aid:	O	O	O	O	O

If financial aid used, please specify:

4. When comparing yourself to students who dropped out of the program, why do you think you completed the nursing program while others did not? Answer by indicating your agreement/disagreement with the following statements

	Not Applicable	Strongly Disagree	Disagree	Agree	Strongly Agree
I had better academic preparation.	O	O	O	O	O
I had natural strengths in nursing-related subjects.	O	O	O	O	O
I had more self-confidence.	O	O	O	O	O
I was more persistent in asking for help.					

school

4. When comparing yourself to students who dropped out of the program, why do you think you completed the nursing program while others did not? Answer by indicating your agreement/disagreement with the following statements

	Not Applicable	Strongly Disagree	Disagree	Agree	Strongly Agree
I had more personal financial resources.	O	O	O	O	O
I had more financial support from my family.	O	O	O	O	O
I had more financial support from the school.	O	O	O	O	O
My family supported me more while I went to school.	O	O	O	O	O
My spouse/significant other supported me more while I went to school.	O	O	O	O	O
My life is not as complicated as other people's lives.	O	O	O	O	O
Nursing faculty supported me more.	O	O	O	O	O
People at the college supported me more.	O	O	O	O	O
I was more willing to ask for help	O	O	O	O	O
I was more assertive than others	O	O	O	O	O
I had a special person in my life who was my role model/confidante.	O	O	O	O	O
I worked harder to learn and to get good grades.	O	O	O	O	O
I was more able to develop a support network.	O	O	O	O	O
I dealt with stress better.	O	O	O	O	O

5. Finally, please tell us about yourself:

Age: O under 25 O 26-30 O 31-35 O 36-40 O 41+

Gender: O female O male

Ethnicity: O White (not hispanic) O African-American O Hispanic O Asian O Other

Marital status O Single O Married O Divorced O Widowed

Do you have children? O Yes O No

Are you an LVN? O Yes O No

Are you a paramedic or EMT? O Yes O No

Were you working while attending school? O Yes O No

If yes, which statement best describes your workload while completing the nursing program?

O I worked the entire time I was in the nursing program.

O I worked 1 to 2 semesters while I was in the nursing program.

O I worked 3 to 4 semesters while I was in the nursing program.

O Other Please specify:

And, how many hours per week (on average) did you work?

O less than 10 hours per week

O 11-20 hours per week

O 21-40 hours per week

O more than 40 hours of work per week

school | | | | | | |

6. Finally, please tell us about yourself: (continued)

Is this your first college degree? O Yes O No

Are you the first person in your immediate family to graduate from college? O Yes O No

How many semesters did it take you to complete the nursing program (after you were admitted into the nursing program)?

O less than 4 semesters
O 4 semesters
O 5 semesters
O 6 semesters
O more than 6 semesters

How much emphasis does your nursing program place on students graduating on time? Choose the number closest to your answer.

No emphasis		Somewhat of an emphasis			Major emphasis
O 0	O 1	O 2	O 3	O 4	O 5

When selecting your nursing program, would knowing the graduation rate have influenced your decision? O Yes O No

When selecting your nursing program, would knowing the NCLEX pass rate have influenced your decision? O Yes O No

7. Given the opportunity to talk with members of the Texas Legislature, what strategies to increase nursing graduates would you advocate?

Thank you for completing the survey. You've been a great help to us!

Appendix G

Survey Results

Summary of Responses from Deans/Directors of Nursing Programs in Texas
Report Prepared by Carolyn L. Cason, RN, PhD, Data Director
March 31, 2006; updated June 2006

1. Generally speaking, of the admission criteria that you use, which are the most predictive of a student's ability to complete the nursing program?

Criterion	Program Type	Not used	Never	Sometimes	Often	Always
Minimum ACT or SAT score	ADN BSN	67 67	2 6	11 22	15 0	2 0
Minimum GPA	ADN BSN	13 22	4 6	43 17	35 39	2 11
Overall GPA in degree plan*	ADN BSN	15 11	0 11	41 22	33 50	6 0
GPA: pre-requisite courses	ADN BSN	6 11	0 0	30 17	59 61	2 6
GPA: Science courses	ADN BSN	13 17	0 0	28 6	43 50	13 22
Pre-Entrance exam	ADN BSN	50 56	0 0	11 6	26 28	2 6
HESI	ADN BSN	67 50	0 0	4 0	17 22	6 11
NET	ADN BSN	67 39	0 0	6 6	20 39	0 6
TSI*	ADN BSN	54 83	6 0	24 0	9 0	2 0
Specific grades in science/math courses	ADN BSN	17 50	2 0	33 6	43 11	4 0
High school advanced placement courses	ADN BSN	74 67	2 6	17 17	2 6	0 0
Pre-requisite courses	ADN BSN	4 17	0 6	50 17	39 56	4 0
Number of courses completed in the degree	ADN BSN	15 33	9 6	39 28	35 22	0 0
Number of hours completed at institution	ADN BSN	41 39	20 6	20 17	20 22	0 6
Letters of recommendation	ADN BSN	83 67	11 11	6 17	0 0	0 0
Essay	ADN BSN	91 67	2 11	6 11	0 6	0 0

Interview*	ADN BSN	96 61	2 6	2 28	0 0	0 0
Prior work experience (LVN-RN)*	ADN BSN	26 61	15 6	35 28	24 0	0 0
Prior work experience (EMT)	ADN BSN	50 67	9 11	28 17	13 0	0 0
Number of times applicant has applied and met minimum requirements	ADN BSN	50 61	6 0	30 28	11 6	0 0

ADN Programs = 46; BSN programs = 18

2. Of the admission selection processes, which best describes the one used by your program?

Process	Program Type	Percent
All applicants that meet minimum standards are offered admission.	ADN BSN	4 11
Use a point/weighting system to rank and select most qualified applicants.	ADN BSN	91 56
Use a random/lottery system to select from applicants that meet admission standards.	ADN BSN	0 0
Use date application was submitted to select from applicants that meet admission standards.	ADN BSN	0 0

3. Do you think that your program should be more selective in choosing applicants for your nursing program?

Response	Program Type	Percent
Yes	ADN BSN	39 44

4. Generally speaking, how does your program identify students who are at risk for not graduating from the nursing program?

Risk	Program Type	Percent
Fail a nursing course and repeat it*	ADN BSN	85 100
Perform poorly on tests	ADN BSN	96 83
Repeatedly miss class (absenteeism)	ADN BSN	54 44
Have an overall GPA that is below an acceptable level	ADN BSN	24 39

Are readmitted to the program	ADN BSN	67 44
Fail key course requirements (e.g., dosage calculation or pharmacology exam)	ADN BSN	52 67
Receive a low rating on one or more clinical days	ADN BSN	30 61
Have a high level of financial need	ADN BSN	48 39
Have a marginal family support system	ADN BSN	48 50
Have a demographic profile similar to other students at risk	ADN BSN	20 39
Have underdeveloped English language skills	ADN BSN	61 78
Are non-traditional students (students returning to school later in life; first generation college student)	ADN BSN	17 28
Have no systematic way to identify students at risk	ADN BSN	9 6

5. How successful do you believe the following interventions are for students who are at risk for not graduating from the program.

Intervention	Program Type	Not Used	Not Successful	A little Successful	Very Successful	Extremely Successful
Additional academic advising	ADN BSN	4 0	13 6	48 39	24 44	6 6
Participation in study groups	ADN BSN	0 6	2 6	37 33	54 44	4 6
Working with faculty or nurse mentor	ADN BSN	2 11	0 0	33 33	61 33	4 22
Working with a peer*	ADN BSN	6 6	0 6	59 44	30 33	0 11
Supplementary classes/tutoring	ADN BSN	2 11	2 11	48 28	35 28	9 22
Personal counseling	ADN BSN	15 6	2 0	46 28	26 56	4 6
Counseling for family members*	ADN BSN	87 72	2 11	2 11	2 0	0 0
On-campus employment	ADN BSN	72 44	9 22	6 28	2 0	0 0

*Results found to be statistically significant

6. Does your program conduct exit interviews with students who are withdrawing permanently from the program?

Response	Program Type	Percent
Yes	ADN BSN	72 61

7. Please indicate how local hospitals/other healthcare organizations participate in the nursing program.

Response	Program Type	Percent Yes
Financial support to operate my program	ADN BSN	33 61
Qualified nurses as adjunct faculty*	ADN BSN	54 83
Qualified nurses as clinical preceptors	ADN BSN	85 100
Financial support for my students	ADN BSN	83 61
Additional instruction/training opportunities for my students*	ADN BSN	41 67
Additional opportunities for their employees to become nurses through my program	ADN BSN	74 67

8. How challenging are these potential obstacles for faculty in helping students complete the nursing program?

Obstacle	Program Type	Not a Challenge	A small Challenge	A moderate Challenge	A large Challenge
Having adequate resources to refer students with academic problems	ADN BSN	30 22	22 17	37 50	11 11
Ease of referral to resources for students with academic problems	ADN BSN	43 50	22 6	33 39	2 0
Having adequate resources to refer students with personal problems*	ADN BSN	24 50	22 33	39 11	15 6
Ease of referral process to resources for students with personal problems	ADN BSN	30 56	30 22	24 11	15 11
Having workloads that	ADN	11	22	3	33

allow time to help students	BSN	6	17	28	50
Having adequate faculty to student ratios	ADN BSN	20 6	28 44	24 40	28 11
Having the support of the of the Dean/Director for retention efforts	ADN BSN	65 89	22 6	13 6	0 0
Having the support of University/College administration for retention efforts	ADN BSN	43 44	26 17	24 39	6 0
Lack of incentives (e.g., release time, financial) for retention efforts	ADN BSN	15 17	15 28	35 33	35 17

9. Have you had to cut programs that were beneficial to student success?

Response	Program Type	Percent
Yes	ADN BSN	20 6

10. How much emphasis does your nursing program place on students graduating on time?

Degree of emphasis	Program Type	percent
None	ADN BSN	6 6
1	ADN BSN	2 11
2	ADN BSN	15 22
3	ADN BSN	30 33
4	ADN BSN	28 11
Major	ADN BSN	17 17

12. Initial RN licensure program statistics

Statistic	ADN Programs	BSN Programs
Student to faculty ratio		
Range	5 to 29.43	5 to 22.8
Mean	13.8	11.2
Standard Deviation	4.4	4.2

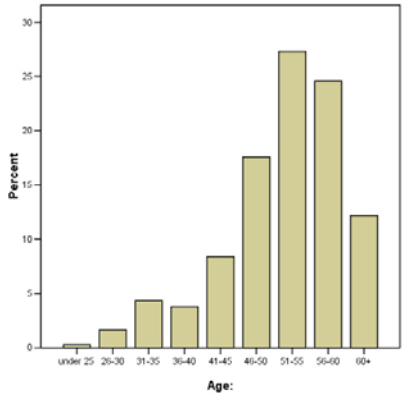
Vacant FTE faculty positions		
Range	0 to 6	0 to 4
Mean	1	0.75
Standard Deviation	1.4	1.4
Graduates 9/04 through 8/05		
Range	30 to 556	23 to 318
Mean	73	98
Standard Deviation	55	71
Graduates passing NCLEX		
Range	13 to 100	78 to 100
Mean	89	89
Standard Deviation	13	6
Faculty FTE providing support services		
Range	0 to 7	0 to 3
Mean	0.6	0.6
Standard Deviation	1.3	.85
Staff FTE providing support services		
Range	0 to 6	0 to 6
Mean	1.1	1.3
Standard Deviation	1.2	1.6

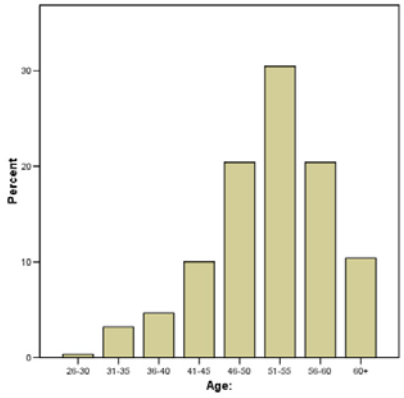
21 or 46 percent of ADN programs had no vacant FTE faculty positions.
12 or 67 percent of BSN programs had no vacant FTE faculty positions.
30 or 65 percent of ADN programs had no FTE faculty exclusively providing support services.
9 or 50 percent of BSN programs had no FTE faculty exclusively providing support services

Summary of Responses from Faculty of Schools of Nursing
Report Prepared by Carolyn L. Cason, RN, PhD, Data Director
March 31, 2006

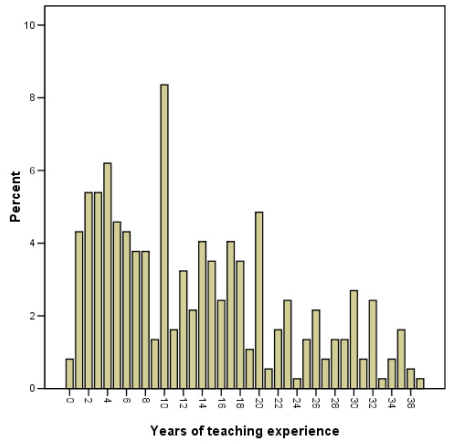
Demographics

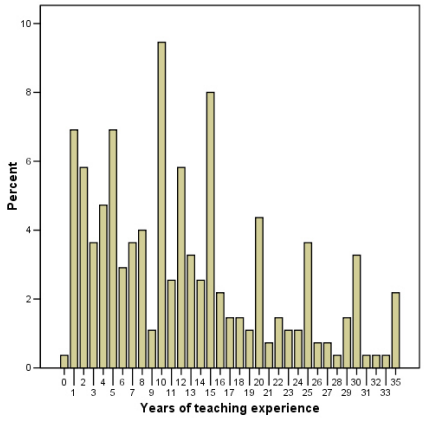
Faculty : **ADN (n=387)** **BSN (n = 288)**





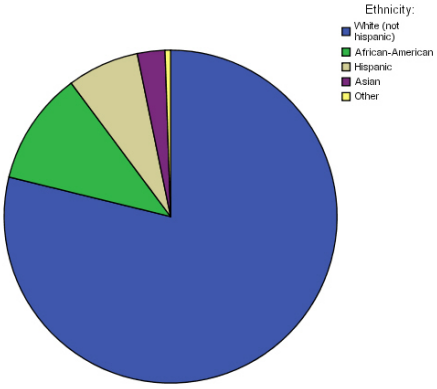
Age of ADN faculty Age of BSN faculty

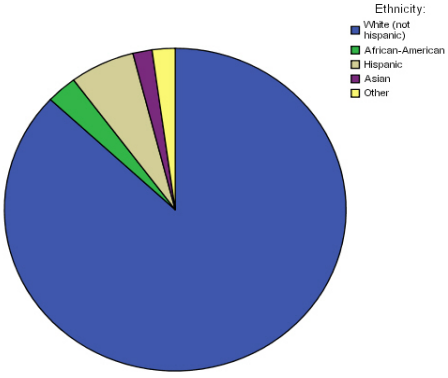




ADN BSN

Ethnicity





1. Generally speaking, how challenging are these potential obstacles for students in completing the nursing program at your institution?

Obstacle	Program Type	Not a challenge	A small challenge	A moderate challenge	A large challenge
Passing					
Pre- requisite science math courses	ADN BSN	7 7	27 27	52 51	12 11
Nursing lecture courses*	ADN BSN	1 1	8 16	54 62	37 18
Clinical courses	ADN BSN	4 4	24 24	57 26	14 12
Accessing					
Nursing faculty	ADN BSN	55 52	32 35	9 8	3 2
Instructional materials& study aids*	ADN BSN	45 51	39 37	12 10	3 0
Developing study skills					
Study skills generally	ADN BSN	3 4	17 23	50 49	30 23
Library skills	ADN BSN	8 9	39 35	37 37	15 16
Test-taking skills*	ADN BSN	1 2	12 16	43 49	44 32
Time management skills	ADN BSN	1 2	9 11	41 43	49 41
Computer skills*	ADN BSN	11 23	54 51	28 20	7 3
Finding					
Financial support to go to school	ADN BSN	3 5	23 20	45 48	29 23
Transportation to school	ADN BSN	17 20	54 51	25 23	3 4
Child care	ADN BSN	5 7	35 42	46 39	13 9
Time to study*	ADN BSN	1 1	11 13	43 56	4 28
Managing					
Ethnic/racial differences	ADN BSN	41 36	45 42	1 16	3 3
Gender	ADN	53	41	4	1

differences*	BSN	44	42	10	1
Age differences between fellow students	ADN BSN	53 45	40 42	5 8	1 1
Age difference between faculty and students	ADN BSN	53 45	35 42	9 9	1 1
Juggling work schedules around coursework*	ADN BSN	1 1	10 20	41 43	47 35
Dealing with family conflict/crises*	ADN BSN	0 2	16 26	49 45	34 24
Juggling coursework with family obligations*	ADN BSN	0 3	11 18	40 45	46 31
Responsibilities related to social activities					
Band/cheerleader*	ADN BSN	79 55	6 25	2 6	2 6
Fraternity/sorority*	ADN BSN	79 47	7 31	2 9	2 5
Professional club (e.g., SNA)*	ADN BSN	46 30	36 50	10 11	3 2
Athletics*	ADN BSN	77 42	7 27	2 14	3 8
ROTC*	ADN BSN	79 48	5 24	2 16	3 5

2. How challenging are these potential obstacles for faculty in helping students complete the nursing program?

Obstacle	Program Type	Not a Challenge	A small Challenge	A moderate Challenge	A large Challenge
Having adequate resources to refer students with academic problems	ADN BSN	22 23	33 34	32 28	11 14
Ease of referral to resources for students with academic problems	ADN BSN	28 27	37 37	23 21	10 13
Having adequate resources to refer students with personal problems*	ADN BSN	18 26	30 40	34 24	15 8

Ease of referral process to resources for students with personal problems*	ADN BSN	21 28	36 39	27 21	1 8
Having workloads that allow time to help students	ADN BSN	8 6	28 24	33 41	28 26
Having adequate faculty to student ratios*	ADN BSN	13 7	21 23	30 36	34 31
Having the support of the of the Dean/Director for retention efforts	ADN BSN	51 50	26 24	13 16	8 8
Having the support of University/College administration for retention efforts	ADN BSN	32 30	34 32	20 20	11 14
Lack of incentives (e.g., release time, financial) for retention efforts	ADN BSN	12 15	20 21	27 29	38 33

3. How helpful were these services to students in completing the nursing program?

Services	Program Type	Not available Not applicable	Not helpful	Somewhat helpful	Very helpful	Extremely helpful
Orientation program prior to starting nursing course sequence	ADN BSN	5 7	3 1	30 32	47 40	17 16
Developmental (remedial) education*	ADN BSN	6 13	9 3	43 40	31 30	8 9
English as a second language*	ADN BSN	16 26	20 10	32 28	18 19	8 9
Specialized developmental courses						
Test taking skills*	ADN BSN	13 9	7 3	36 38	25 31	15 15
Time management*	ADN BSN	14 11	11 4	34 38	21 26	14 14
Study skills*	ADN BSN	12 10	11 3	35 39	25 29	14 13
Library skills*	ADN BSN	11 7	10 2	40 41	24 31	11 13

Specialized laboratories						
Math lab*	ADN BSN	30 38	9 3	28 22	17 19	11 8
Reading lab	ADN BSN	37 39	10 3	26 24	15 16	8 8
Nursing skills lab	ADN BSN	4 1	2 1	15 14	40 37	37 43
Computer lab	ADN BSN	8 7	3 3	26 19	37 42	23 23
Writing lab*	ADN BSN	33 24	10 6	26 28	14 25	8 10
Library*	ADN BSN	4 2	5 2	37 24	32 38	16 23
Academic assistance						
Learning style assessment testing	ADN BSN	31 32	7 8	34 33	19 15	5 4
Teaching assistants*	ADN BSN	59 44	3 5	1 18	12 21	8 4
Academic advising*	ADN BSN	5 1	8 4	45 30	28 43	10 17
Tutoring by faculty/staff	ADN BSN	14 12	3 2	24 22	40 42	17 17
Peer mentoring*	ADN BSN	29 19	5 3	30 29	24 33	8 10
Organized study groups	ADN BSN	18 19	3 1	31 28	36 33	10 12
Mentor program*	ADN BSN	53 43	3 1	20 20	14 21	4 8
Computer based aids (generally)						
Lecture notes published	ADN BSN	13 7	3 3	24 25	38 37	20 23
Audio-visual support in lectures and laboratories	ADN BSN	1 0	1 2	25 19	47 48	24 26
Access to lectures on the internet*	ADN BSN	30 19	2 2	18 18	29 35	18 21
Discussion chat rooms*	ADN BSN	46 32	6 9	27 33	13 14	5 7

Personal/Family Support						
Mental health counselor*	ADN BSN	41 11	6 3	30 44	14 26	5 9
Student organizations*	ADN BSN	11 3	14 12	54 44	14 27	4 7
Child care*	ADN BSN	39 53	5 4	25 15	18 13	10 8
Job placement assistance*	ADN BSN	46 32	7 5	23 26	16 22	4 6
Ombudsman*	ADN BSN	70 59	5 4	11 17	6 6	1 3
Disabled student support	ADN BSN	27 18	6 6	33 35	22 26	8 6
Big sister/brother program*	ADN BSN	82 70	3 2	5 11	3 6	1 0
Transportation*	ADN BSN	67 53	5 6	10 17	7 8	5 7
Financial Aid						
Scholarship	ADN BSN	1 0	2 0	24 19	38 37	33 38
Student loans*	ADN BSN	3 1	3 0	23 16	41 40	27 37
Employment tuition reimbursement	ADN BSN	14 14	2 2	20 15	35 31	24 31

4. Generally speaking, how does your program identify students who are at risk for not graduating from the nursing program?

Risk	Program Type	Percent
Fail a nursing course and repeat it	ADN BSN	90 91
Perform poorly on tests	ADN BSN	93 92
Repeatedly miss class (absenteeism)	ADN BSN	74 66
Have an overall GPA that is below an acceptable level	ADN BSN	52 65
Are readmitted to the program	ADN BSN	70 49
Fail key course requirements (e.g., dosage calculation or pharmacology exam)	ADN BSN	75 83
Receive a low rating on one or more clinical days	ADN	52

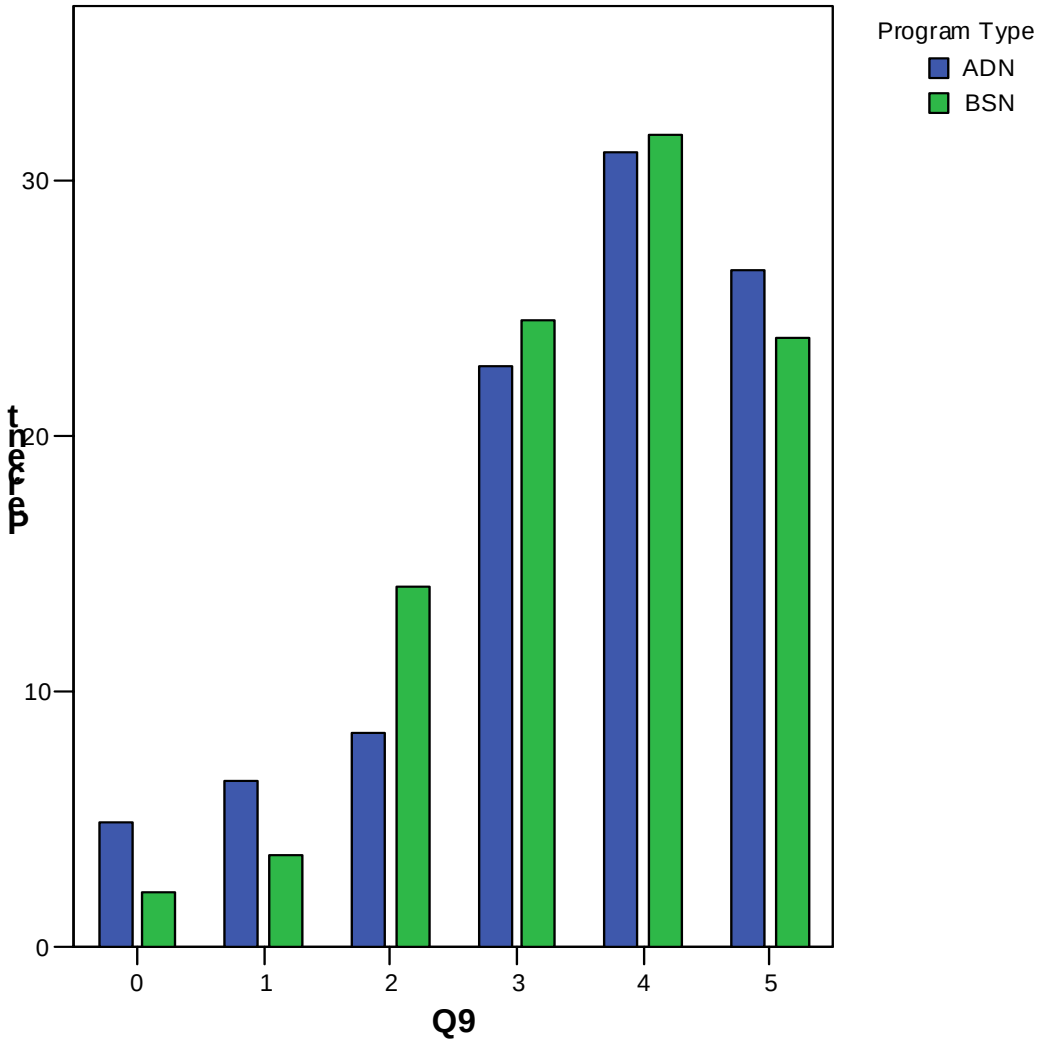
	BSN	57
Have a high level of financial need	ADN BSN	28 23
Have a marginal family support system	ADN BSN	41 32
Have a demographic profile similar to other students at risk	ADN BSN	16 18
Have underdeveloped English language skills	ADN BSN	66 61
Are non-traditional students (students returning to school later in life; first generation college student)	ADN BSN	20 18
Have no systematic way to identify students at risk	ADN BSN	9 10

5. Of the following interventions for students who are at risk for not graduating, which are the most successful in helping them complete the program?

Intervention	Program Type	Not Used	Not Successful	A little Successful	Very Successful	Extremely Successful
Additional academic advising	ADN BSN	13 8	3 2	38 40	30 31	8 10
Participation in study groups	ADN BSN	7 11	2 2	32 36	42 32	11 9
Working with faculty or nurse mentor*	ADN BSN	16 9	2 1	26 25	37 45	14 15
Working with a peer	ADN BSN	13 13	4 2	34 40	33 31	7 6
Supplementary classes/tutoring*	ADN BSN	23 13	2 1	27 28	29 38	11 13
Personal counseling*	ADN BSN	18 9	3 1	41 42	26 28	5 9
Counseling for family members*	ADN BSN	76 65	2 4	8 13	3 3	1 1
On-campus employment*	ADN BSN	59 41	7 7	17 31	4 7	1 2

*Results found to be statistically significant

9. How much emphasis does your nursing program place on students graduating on time?*



Summary of Responses from Students of Schools of Nursing
Report Prepared by Carolyn L. Cason, RN, PhD, Data Director
May 2006
Region: State of Texas

Student Respondents: ADN = 2208
BSN = 928

Age	**Under 25**	**26-30**	**31-35**	**36-40**	**Over 40**
% of ADN students	28	25	17	13	15
% of BSN students	56	21	10	4	6

Gender	**Female**	**Male**
% of ADN students	81	16
% of BSN students	85	12

Ethnicity	**White (non-Hispanic)**	**African-American**	**Hispanic**	**Asian**	**Other**
% of ADN students	60	9	18	7	4
% of BSN students	62	8	18	6	3

Marital Status	**Single**	**Married**	**Divorced**	**Widowed**
% of ADN students	34	52	10	1
% of BSN students	59	34	5	

Characteristic	% of ADN students	% of BSN students
Do you have children?*	58	30
Is this your first college degree?*	65	70
Are you the first person in your immediate family to graduate from college?*	38	32
Are you an LVN?*	22	5
Are you a paramedic or EMT?	4	4
Were you working while attending school?	67	70

If working while attending school, statement that best describes your workload while completing the nursing program.

Statement	**% ADN students**	**% BSN students**
Entire time I was in the program	42	31
I worked 1 to 2 semesters while I was in the nursing program	16	21
I worked 3 to 4 semesters while I was in the nursing program.	10	17

Other	6	7

Number of hours per week (on average) did you work?

Hours/week	**% ADN students**	**% BSN students**
Less than 10	11	21
11-20	24	33
21-40	33	19
More than 40	5	2

How many semesters did it take you to complete the nursing program (after you were admitted into the nursing program)?*

Number of Semesters	% of ADN students	% BSN students
Less than 4	15	5
4	47	49
5	23	28
6	5	10
More than 6	4	6

How much emphasis does your nursing program place on students graduating on time?*

Degree of emphasis	% of ADN students	% BSN students
None	8	10
1	5	8
2	11	14
3	15	21
4	18	21
Major	37	24

1. Generally speaking, how challenging are these potential obstacles for you in completing the nursing program at your institution?

Obstacle	Program Type	Not a challenge	A small challenge	A moderate challenge	A large challenge
Passing					
Pre- requisite science math courses*	ADN BSN	29 36	33 30	32 28	6 4
Nursing lecture courses*	ADN BSN	6 12	15 21	41 44	36 21
Clinical courses*	ADN BSN	14 18	27 27	44 41	13 12
Accessing					
Nursing faculty*	ADN BSN	34 37	31 36	24 18	9 7
Instructional materials& study aids*	ADN BSN	29 37	34 37	27 20	8 4
Developing study skills					
Study skills generally*	ADN BSN	14 20	35 35	36 33	14 10
Library skills*	ADN BSN	39 31	36 43	19 19	5 6
Test-taking skills*	ADN BSN	11 15	29 31	35 34	23 18
Time management skills	ADN BSN	10 11	28 28	36 37	24 21
Computer skills*	ADN BSN	49 54	30 31	15 11	4 2
Finding					
Financial support to go to school	ADN BSN	23 24	24 25	25 25	26 25
Transportation to school	ADN BSN	64 67	19 19	9 8	6 5
Child care*	ADN BSN	61 74	15 7	11 7	11 8
Time to study*	ADN BSN	9 8	20 24	35 38	34 27
Managing					
Ethnic/racial differences	ADN BSN	79 80	11 12	5 4	3 3
Gender differences	ADN BSN	83 85	10 9	4 3	2 1
Age differences between fellow students*	ADN BSN	79 75	14 18	4 3	1 2
Age difference between faculty and students*	ADN BSN	80 74	12 17	5 6	2 2
Juggling work schedules around coursework*	ADN BSN	22 23	21 24	28 29	27 22

Dealing with family conflict/crises*	ADN BSN	18 21	30 31	29 28	21 18
Juggling coursework with family obligations*	ADN BSN	12 17	26 30	34 29	27 22
Responsibilities related to social activities					
Band/cheerleader	ADN BSN	85 85	2 2	2 1	2 2
Fraternity/sorority*	ADN BSN	85 81	2 4	2 2	2 3
Professional club (e.g., SNA)*	ADN BSN	78 71	7 13	4 6	2 3
Athletics	ADN BSN	81 79	4 5	3 3	2 3
ROTC	ADN BSN	84 85	2 1	2 1	2 2

2. Generally speaking, how important were these people in helping you complete the nursing program?

People	**Program Type**	**Not important**	**Somewhat important**	**Very important**	**Extremely important**
Class room faculty*	ADN BSN	5 4	20 25	43 45	30 24
Clinical faculty*	ADN BSN	2 2	13 16	45 47	38 33
Clinical preceptors/Nurse mentors	ADN BSN	7 5	20 19	42 43	28 30
Dean/ Director of program*	ADN BSN	33 44	33 33	20 15	12 6
Academic advisor	ADN BSN	40 38	32 34	16 16	8 9
Mental health counselor*	ADN BSN	67 72	15 14	9 6	5 4
Teaching assistants*	ADN BSN	55 59	21 25	14 10	7 3
Other nursing students	ADN BSN	5 5	19 20	37 36	37 38
Spouse/partner*	ADN BSN	21 26	11 13	23 21	41 37
Parent/Guardian*	ADN BSN	26 18	17 20	25 25	29 35
Other family member*	ADN BSN	25 25	18 21	26 23	28 27
Friends*	ADN BSN	17 12	24 24	29 33	27 29

3. How helpful were these services to you in completing the nursing program?

Services	Program Type	Not available Not applicable	Not helpful	Somewhat helpful	Very helpful	Extremely helpful
Orientation program prior to starting nursing course sequence*	ADN BSN	13 15	14 21	39 39	22 17	9 6
Developmental (remedial) education*	ADN BSN	48 56	12 12	22 19	12 7	4 2
English as a second language*	ADN BSN	79 84	4 4	4 3	5 2	3 2
Specialized developmental courses						
Test taking skills	ADN BSN	40 41	10 11	25 26	15 14	8 5
Time management*	ADN BSN	39 44	10 10	23 26	16 14	8 6
Study skills*	ADN BSN	39 42	9 12	22 23	17 14	9 6
Library skills*	ADN BSN	40 39	13 16	26 28	12 11	5 3
Specialized laboratories						
Math lab*	ADN BSN	59 69	10 10	15 10	8 6	5 2
Reading lab*	ADN BSN	70 75	10 10	9 6	5 3	3 1
Nursing skills lab*	ADN BSN	11 9	6 6	28 33	29 32	22 17
Computer lab*	ADN BSN	23 23	9 8	28 24	22 26	14 16
Writing lab*	ADN BSN	66 62	9 11	10 13	7 7	4 7
Library*	ADN BSN	19 13	10 9	35 35	18 24	11 13
Academic assistance						
Learning style assessment testing*	ADN BSN	46 45	13 19	23 23	10 7	5 4
Teaching assistants	ADN BSN	54 48	10 16	18 24	9 7	5 2
Academic advising*	ADN BSN	34 19	19 27	30 35	10 12	4 5
Tutoring by faculty/staff*	ADN BSN	40 34	10 11	22 26	15 19	9 8
Peer mentoring*	ADN	38	8	21	19	11

	BSN	35	10	22	20	10
Organized study groups*	ADN BSN	22 19	11 12	25 28	22 24	17 14
Mentor program*	ADN BSN	66 57	9 12	11 14	6 9	4 5
Computer based aids (generally)						
Lecture notes published*	ADN BSN	5 3	4 3	22 17	32 34	34 40
Audio-visual support in lectures and laboratories	ADN BSN	6 5	6 7	27 26	32 31	26 28
Access to lectures on the internet*	ADN BSN	23 14	5 3	14 13	26 27	29 42
Discussion chat rooms*	ADN BSN	51 34	15 25	14 19	9 11	7 8
Personal/Family Support						
Student organizations*	ADN BSN	49 37	20 22	18 26	7 8	4 5
Child care*	ADN BSN	63 76	5 5	5 3	9 4	14 9
Job placement assistance*	ADN BSN	69 64	7 8	9 13	7 7	4 5
Ombudsman	ADN BSN	84 84	4 5	4 4	2 2	1 1
Disabled student support	ADN BSN	86 89	4 3	3 2	2 2	1 1
Big sister/brother program	ADN BSN	88 89	3 4	3 2	2 1	1 1
Transportation*	ADN BSN	68 61	4 5	6 9	7 8	11 10
Financial Aid						
Scholarship*	ADN BSN	48 32	5 5	7 13	9 12	27 34
Student loans*	ADN BSN	51 29	4 2	6 10	9 14	26 42
Employment tuition reimbursement	ADN BSN	67 68	5 4	4 5	7 5	14 15

4. When comparing yourself to students who dropped out of the program, why do you think you completed the nursing program while others did not? Answer by indicating your agreement/disagreement with the following statements

Statement	**Program Type**	**Not applicable**	**Strongly disagree**	**Disagree**	**Agree**	**Strongly Agree**
I had better academic preparation.*	ADN BSN	8 3	7 7	29 31	41 41	12 16
I had natural strengths in	ADN	6	6	26	44	14

nursing related subjects.*	BSN	3	7	26	47	15
I had more self confidence.*	ADN BSN	5 2	6 5	26 28	46 44	14 17
I had more personal financial resources.*	ADN BSN	8 6	18 23	35 37	28 25	7 7
I have more financial support from my family.*	ADN BSN	9 7	16 21	28 27	33 33	11 10
I had more financial support from the school.*	ADN BSN	21 12	20 23	34 39	15 20	5 4
My family supported me more while I went to school.	ADN BSN	8 7	8 8	17 18	38 39	25 25
My spouse/significant other supported me more while I went to school.*	ADN BSN	20 30	7 6	14 13	29 27	26 21
My life is not as complicated as other people's lives.*	ADN BSN	6 4	33 32	32 32	19 22	7 7
Nursing faculty supported me more.*	ADN BSN	10 5	24 25	41 47	17 18	3 2
People at the college supported me more.*	ADN BSN	11 7	22 21	42 43	18 23	3 4
I was more willing to ask for help.*	ADN BSN	7 4	9 10	29 31	43 43	9 10
I was more assertive than others.*	ADN BSN	6 3	9 8	34 37	38 39	9 10
I had a special person in my life who was my role model/confidant.*	ADN BSN	15 12	9 7	29 28	28 33	15 16
I worked harder to learn and to get good grades.	ADN BSN	5 2	5 3	23 21	45 46	19 25
I was more able to develop a support network.*	ADN BSN	8 5	7 5	29 27	41 47	12 14
I dealt with stress better.*	ADN BSN	4 2	11 10	30 28	39 43	11 13

	% ADN students	**% BSN students**
When selecting your nursing program, would knowing the graduation rate have influenced your decision?	59	61
When selecting your nursing program, would knowing the NCLEX pass rate have influenced your decision?*	67	72

*Results found to be statistically significant

Increasing RN Graduates in Texas

Strategies for increasing RN Graduates in Texas
Report prepared by Carolyn L. Cason, RN, PhD, Data Director
March 31, 2006

Question: Given the opportunity to talk with members of the Texas Legislature, what strategies to increase nursing graduates would you advocate?

Responses to the above open-ended question by faculty and administrators were analyzed to reflect common themes. Six (6) themes emerged from the analysis and represented the widest number of responses. Themes identified were:

1. Financial support for faculty
2. Incentives for faculty
3. Financial support for students
4. Financial support for schools
5. The creation of a Regional Admission Center
6. Non-Legislative Issues

The six themes above are further broken down to include subsections, as follows:

1. Financial support for Faculty:
    A. Salaries
2. Incentives for Faculty
    A. Increase time available for faculty to get advanced degrees
    B. Tuition support to return to school
3. Financial support for students
    A. Scholarships
    B. Loans
    C. Stipends
4. Financial support for schools
    A. Simulation labs
    B. Increased space
    C. At risk programs
    D. Money for Graduate Teaching Assistants
    D. ESL program
    E. Stipend to college for each student passing boards
    F. Money to improve labs
5. Regional Admission Center
    A. Standardized test in science courses
    B. Better prepare pre-nursing
    C. Admissions more selective
6. Non-legislative issues
    A. Student faculty ratio change
    B. Improve workplace environment

The frequency of citation of these themes in the analysis includes two hundred sixty-six (266) citations for faculty support, which includes salaries and incentives. Respondents cited funds for student support one hundred twenty-two (122) times. Respondents cited funds to schools for development one hundred (100) times. Finally, respondents listed system changes such as creation of a Regional Admission Center and several non-legislative issues one hundred eighty-five (185) times.

Faculty support – salaries: The theme of salaries for faculty is a topic of great interest to the responding faculty and administrators. Faculty indicated that they would like to see increased funding, including pay increases at intervals. Additionally, faculty mentioned that their salaries are not commensurate with nurses working in practice or service settings. Because of low pay, respondents indicated that it was difficult to recruit faculty, who must take a reduction in salary if they desired to teach. Faculty respondents reported their salaries were approximately equivalent to that of a new graduate nurse. In order to recruit and retain quality faculty, the belief is that salaries must increase. Administrators concurred with the faculty report regarding salary. One administrator responded that nurses at local hospitals had declined to take an almost fifty (50%) pay cut to accept a faculty position. Other administrators cite the need to make faculty salaries commensurate with pay in practice settings.

Incentives for faculty: Incentives for faculty include primarily assistance to obtain advanced educational degrees to further their careers. Faculty report an existing need to provide tuition support or tuition reimbursement, in order to allow faculty to continue their education in the educator role, and to obtain doctoral degrees. Faculty cited a need for programs which provide tuition payment in exchange for an agreement to teach a designated number of years. These programs are in place, but there may not be widespread awareness by some faculty of their existence. Administrators also cited a need to provide financial assistance, as well as administrative support, for faculty to seek doctoral degrees. Some faculty reported a need for stipends or funds to help retain faculty, as well as incentives to be “equalize disparity between service salaries and faculty salaries”. One administrator proposed incentives such as lost cost mortgages, more educational loans, and decreased or free tuition for the faculty or their children.

Financial support for students: Both faculty and administrators identified the need to assist students financially in order to promote increased success and graduation by funding for scholarships, stipends and loans. Additionally, a common theme identified was financial support or stipends to defray living expenses in order that students would not need to work as many hours, in order to devote more time to study. One administrator proposed financial incentive for students to “graduate, pass NCLEX, and then join the nursing workforce.” This suggestion included money for tuition, fees, books, nursing supplies, transportation, and other fees. Faculty suggested loans and grants, as well as assistance for child care. Some faculty suggested a form of tuition incentive in the form of “loan forgiveness”, calculated based on years of employment in nursing following licensure.

Financial support for schools: Financial support for schools is a broad theme that encompasses funding for a variety of programs and resources. One innovative strategy proposed by faculty included a stipend to the college for each student passing boards. Resources identified as facility needs included more or larger space; new buildings; lecture auditoriums and classrooms; simulation labs; updating of current lab space; library resources; simulation manikins; faculty offices in closer proximity to classrooms and labs; computers, including computers for electronic documentation, computer software, PDA’s, and laptop computers for students.

Resources for services mentioned by administrators and faculty include money for programs for at risk students, including tutoring and mentoring; programs for students with learning disabilities and to improve reading; funding for “retention specialists” and remediation programs; and psychological services for at risk students. Other services include services for ESL students, including retention after they are admitted to nursing programs. Resources needed for personnel include lab coordinators to assist students with practice time and graduate teaching assistants.

Regional admission centers: Both administrators and faculty identified a need for a regional admission center, where students could access information regarding openings for programs, including a generalized set of admission criteria to be determined. These centralized admission centers would relieve faculty involved in the admission process.

Along these lines faculty and administrators both identify a need to strengthen admission criteria and be selective in students being admitted to nursing programs. Administrators and faculty recommend use of a standardized state exam for all science courses in order to demonstrate a specified minimal level of competency. Both groups identify a need to encourage better preparation of students in grade school and high school, including the need for stronger math and science foundation, critical thinking, reading comprehension writing, study skills, and skills to transition to college. Some advocate for funding to grade and high schools to accomplish this goal.

Non-Legislative Issues: The final category contains issues that were identified and cited numerous times by both administrators and faculty, but which are not issues requiring legislative action. These include statements about the need to decrease clinical ratios of nursing faculty to students from the current number of 1 faculty to 10 students, citing improved individualized attention and safety. Finally, both groups cite the need for improvements in the general nursing workplace, which would serve to make nursing more attractive as a profession. These suggestions include workplace staffing. “Students get discouraged to see staff nurses working short, yet knowing the legal implications”. These observations may cause students to re-evaluate their career decisions. The respondents cite that there is a negative public opinion of nursing, in conjunction with low salaries, which make it a less attractive career alternative.

Thanks to Fran Martin, RN, MSN, Kathy Daniel, RN, MSN, and Tamara Wright, RN, MSN for assistance with the analysis of these data.

Increasing RN Graduates in Texas
Strategies for increasing RN Graduates in Texas
Report prepared by Carolyn L. Cason, RN, PhD, Data Director
May 12, 2006

Question: Given the opportunity to talk with members of the Texas Legislature, what strategies to increase nursing graduates would you advocate?

Responses to the above open-ended question by students were analyzed to reflect common themes. Six (6) themes emerged from the analysis and represented the widest number of responses. Themes identified were:

1. Educational strategies
2. Financial aid for students
3. Issues surrounding faculty
4. Admission practices
5. Student support
6. Miscellaneous issues

The six themes above are further broken down to include subsections, as follows:

1. Educational Strategies
    - A. Concerns about HESI
    - B. Length of nursing program
    - C. Standardized passing scores
    - D. Better test preparation and test-taking strategies
    - E. Alternate evaluation methods vs. exams
2. Financial aid for students
    - A. Money for loans, scholarships, grants
    - B. Money for child care
    - C. Money for students not meeting economic criteria
    - D. Money for non-minority students
    - E. Money for international students
3. Issues Surrounding Faculty:
    - A. Increased number of faculty
    - B. Better pay for faculty
    - C. Supportive faculty
    - D. Qualified faculty
4. Admission Practices
    - A. More stringent criteria
    - B. Less stringent criteria
    - C. Increased numbers of students accepted
    - D. Emphasis on program intensity so students better prepared
5. Student Support
    - A. Need for tutoring and mentoring
    - B. Stress reduction strategies
    - C. Counseling services
    - D. Job placement services
    - E. Culturally sensitive support

6. Miscellaneous Issues
   A. Improved RN salaries and workplace conditions
   B. Student complaints re: faculty, programs
   C. Student qualities for success
   D. Recruiting, introducing nursing in grade school, high school
   E. Increased funding for facilities

The frequency of citation of these themes in the analysis includes three hundred sixty-four (364) citations related to educational strategies. Respondents cited financial support two hundred eighty-one (281) times. Issues surrounding faculty were mentioned two hundred fifty-five (255) times. Respondents cited recommendations regarding admission practices seventy-two (72) times. Students mentioned the need for tutoring, mentoring, and student support sixty-seven (67) times. Finally, respondents listed miscellaneous issues, ideas, and complaints about the program one hundred thirteen (113) times.

Recommendations Regarding Educational Strategies: Educational strategies cited by respondents included numerous suggestions they believed would increase RN graduates. Some students suggested condensing the program, while a greater number of students recommended lengthening the program. Students suggested a number of options including lengthening the program by one to two semesters, providing part-time options so students could individualize the program to meet their needs, flexible scheduling to accommodate working students, and availability of courses offered twice yearly. Respondents also provided recommendations ranging from spending less clinical time and more classroom time, to more time in the clinical setting. Respondents recommended specific methods, including case studies, clinical preceptors, greater emphasis on critical thinking skills, “hands-on learning”, and application based teaching. Students cited concerns about inconsistent standard passing scores among nursing schools (70 vs. 75), and recommended all nursing schools adopt a single standardized score. One central issue cited by forty-eight (48) students concerned the HESI exam. Students suggested the HESI not be used as a graduation requirement, but as a learning tool. Respondents recommended that nursing courses include specific preparation for both the HESI and the NCLEX, and that the curriculum should include general test-taking strategies. Finally, students recommended alternate evaluation methods, using strategies other than tests as outcome measures.

Financial support for students: Financial support was a central theme from a large number of student respondents. Students reported a need for more financial assistance, including, scholarships, grants, and loans. Many students cited a need for specific assistance to pay for child care while attending nursing school. Several students responded that financial assistance needed to be available to students who did not meet typical economic criteria, yet who still have a sufficient need for financial resources to attend school. An interesting suggestion was made for funding for financial assistance specific to nursing students. Specific students expressed concern that financial assistance was not available for non-minority students or for international students. Additionally, respondents indicated a need for increased knowledge and awareness about available financial resources

Issues Surrounding Faculty: Student respondents listed a number of items, categorized by an overall theme of faculty issues. Students remarked on the need for more teachers, and recognized that higher salaries would attract more faculty. Additionally, students commented on the need to hire faculty who are more competent, particularly those who are better qualified in effective educational methods. One of the most frequently cited responses was the need for faculty to be caring and supportive of students. Specifically, students requested faculty to be available to help and offer

individual assistance, and to encourage student success. Students recommended lower faculty to student ratios as another method to improve student success.

Recommendations Regarding Admission Practices: Admission practices generated a number of responses from students. Again, students' responses varied diversely. Many respondents recommended making admission criteria less stringent, such as less emphasis placed on grade point average, while others encouraged schools not to lower admission standards, and to utilize interviews and background checks. Respondents believed that admission committees consider a candidate's prior experience in a healthcare field as a positive factor influencing admission to a nursing program. Student respondents also cited the need to increase the number of students admitted to nursing programs. This might be accomplished by adding nursing programs, resulting in more available spaces, and shorter waiting lists. Students recognized that increasing the number of faculty might also result in ability of schools to accept more students.

Student Support: A need for general student support was a frequent theme identified by students. Support included a need for more tutors and mentors. Respondents often requested that faculty serve as mentors and tutors. Students' indicated that faculty mentoring was as valuable as clinical nurse preceptors. Respondents identified a need for funding in order that tutoring is made available to all students without cost. Additionally, students identified a need for advising and counseling services and job placement services, particularly as they neared completion of the program. Stress was cited by a number of respondents as being an obstacle to completion of the program. Numerous respondents recommended schools consider ways to decrease the amount of stress associated with the nursing program or to assist students to manage stress. Respondents recommended that culturally competent educators be available in nursing programs to provide assistance to minority students. Finally, students recommended that schools provide specific information to students emphasizing the intense nature of the nursing program, in order that students make necessary preparations, and recognize the commitment needed to succeed.

Miscellaneous issues: Remaining issues identified by students include miscellaneous ideas as well as complaints. Ideas included suggestions to improve the nursing workplace, increase salaries, and decrease nurse-patient ratios to increase satisfaction. Respondents believed this would further serve to encourage practicing nurses to be willing to precept and supervise students. A number of respondents cited dissatisfaction with various aspects of their program, including faculty qualities, testing, and teaching methods. Mention was made by respondents that nursing programs need to begin introducing the idea of nursing as a profession to students in elementary, junior high and high schools, to market the program earlier. Respondents cited the need for additional funding for facilities and equipment. Finally respondents identified qualities of students necessary to succeed in the program including making a commitment to hard work, not working during the program, and perseverance.

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