

ARIZONA STATE BOARD OF NURSING

Janice K. Brewer
Governor

Joey Ridenour
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SUMMARY AND ANALYSIS OF ANNUAL REPORTS FROM ARIZONA NURSING EDUCATION PROGRAMS 2009

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OF
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EDUCATION PROGRAMS
2009

by
Pamela K. Randolph, RN MS
AZBN Associate Director of Education and Evidence-Based Regulation



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INTRODUCTION

The Mission of the Arizona State Board of Nursing is to protect the public health, safety and welfare through the safe and competent practice of nurses and nursing assistants.

ANNUAL REPORTS DATA

The Arizona State Board of Nursing, (Board), requests an annual report from all Arizona pre-licensure nursing education programs. For the 2003-2009 annual reports, in addition to graduation and admission data, programs were asked about open student placements on the first day of class, faculty, and number of applicants that met qualifications but were not admitted to the semester for which they applied. The number of RN to BSN students and graduates was also requested. Attrition data was requested from 2004 through 2009. In 2006-2009 programs were asked to identify students who took longer than 150% of the allotted program time to complete the program. In 2008 and 2009 programs were asked to identify the faculty to student ratio for didactic classes. The final part of each program's report contains the program administrator's attestation of compliance with Board education rules (A.A.C. Chapter 4, Title 19, Article 2). The annual reports cover a calendar year from January 1 to December 31. All 28 approved programs that had admissions or graduations in 2009 were provided surveys with all 28 returning the survey (100% response rate). Surveys were not anonymous.

DEFINITION OF TERMS	
Total Enrollment	The number of students enrolled in a pre-licensure nursing program.
Total Admissions	The number of students admitted to the first session of a nursing program, regardless of whether it was fall, spring, or summer.
Students Offered Placement	The number of students offered a placement in a 2007 admission cohort.
Students Registered for the First Clinical Course	The number of students of those offered a placement that actually registered in 2007—same as admissions for most programs.
Students Registered Who Did Not Attend	The number of students who registered for the first nursing clinical but never attended classes.
Open Placements in the First Nursing Clinical Course on the First Day of Class	The number of placements that were not filled on the first day of classes; this includes those who registered but did not attend.
Qualified Applicants Not Admitted to the Session for Which They Applied:	Number of applicants who were qualified for admission but were either denied, placed on a wait list, or admitted to a semester other than the one for which they applied.
Advanced Placement Admissions:	The number of students, usually LPNs, admitted to a session, other than the first, of an RN program.

Capacity	The total number of student placements available in a nursing program.
Graduates from original cohort	The number of students who graduated at the same time as their admission class.
Repeated or dropped back	Students who took longer time than their admission class to complete a nursing program because they either repeated a course or dropped out for a period.
Attrition	The percent of students from the original cohort who do not complete the program in a specified time-frame.
Faculty	Has the same meaning as R4-19-204—anyone teaching didactic and/or clinical nursing courses regardless of educational preparation.
Readmission	Means anyone who attended a particular nursing program, dropped out for a period and is now requesting a repeat admission into the program. The original cohort of this individual may have already graduated. The readmitted student would be counted as a person who took more than the ideal time to graduate because they are tied to the first admission cohort.
Session	The academic time period for course offerings; usually a semester (13-15 weeks) or quarter (9-10 weeks) but may vary depending on the institution.

ASSUMPTIONS/EXPLANATORY REMARKS

The following assumptions and explanations were made in compiling and interpreting the data:

- Practical Nurse (PN) data only applies to traditional PN programs, not programs with a PN option unless indicated in the explanatory comments.
- The number of students “qualified but not admitted” to a program does not represent an unduplicated or accurate count of students awaiting admission to a nursing program. Many, if not most students, particularly in the metropolitan areas of the state, apply to multiple programs simultaneously. In addition a student may qualify for one program, but not qualify for another due to varying admission requirements. This number may also be underrepresented due to programs only accepting applications for placement 2-3 semesters into the future since placements in the current semester are filled.
- Number of unfilled placements should not be interpreted to mean that these placements are always available to other qualified students. In some instances, the program is not aware of the vacancy until immediately before the start of classes. At this point in time, the program may not be able to find a qualified student to fill the placement.
- These data apply only to in-state programs approved by the Board.

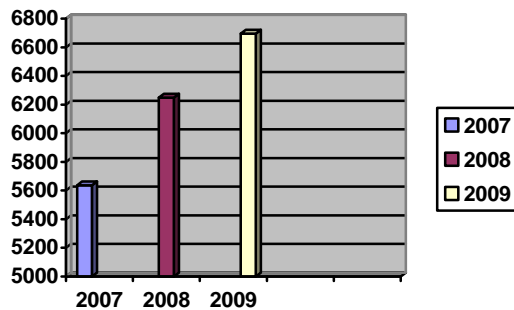
DATA AND ANALYSIS

All data was entered into an Excel chart and graphic representations were made using Excel, PowerPoint and Microsoft Word. Please contact Pamela Randolph prandolph@azbn.gov for the original data if needed.

ENROLLMENT

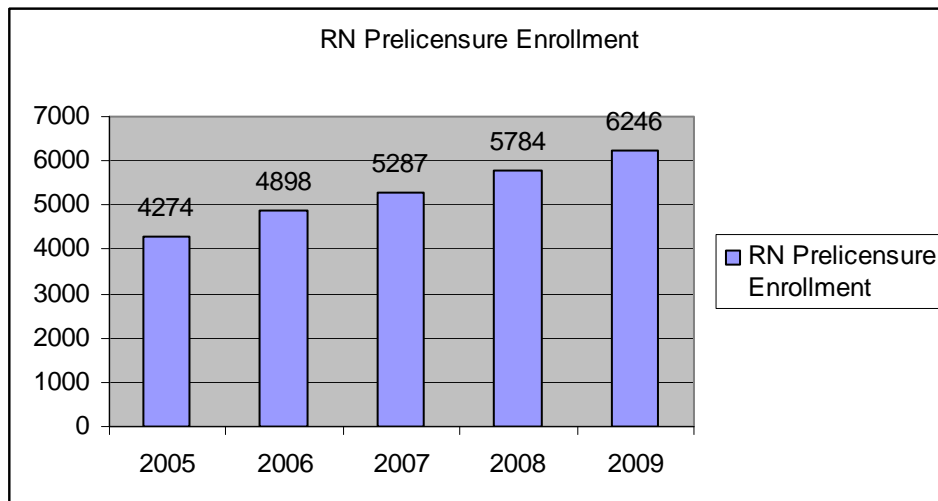
The following figure displays enrollment in all nursing programs (RN/PN and public/private). Overall enrollment has increased each year since 2001. Total nursing program enrollments in 2009 were 6696 a 7% increase from 6248 enrolled students 2008. Total nursing program enrollments increased by 137% since 2001 (2820 to 6696). This represents 3876 additional nursing students in all types of nursing programs (LPN and RN).

TOTAL PROGRAM ENROLLMENT



Registered Nurse Program Enrollment

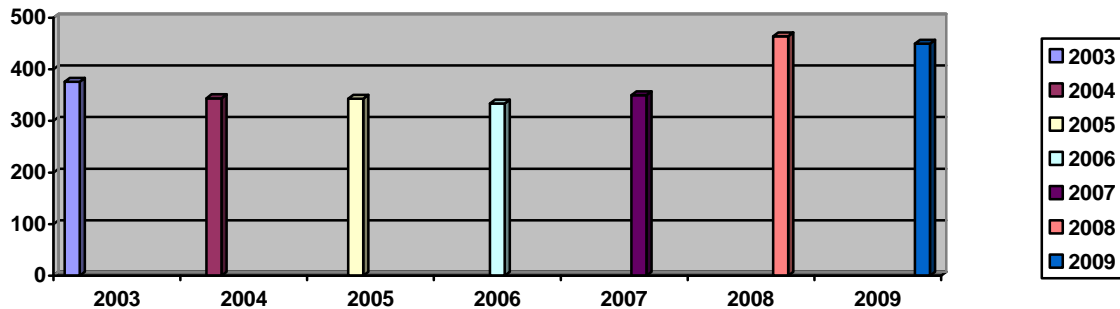
In 2009 RN enrollment increased by 8 % to 6246 students (additional 462 students). In 2001 there were 2664 students enrolled in RN programs. The 2009 enrollment represents a 134% increase in 9 years. Registered nurse program enrollment gains vary from year to year with increases ranging from a high of 26% in 2005 to a low of 4.7% in 2004.



Practical Nursing Program Enrollments

Practical nursing (PN) enrollments appear to be stagnant in 2009 with 450 enrolled students, 14 less than 2008. This may be an artifact of the reporting mechanism as PN capacity increased in 2009 but enrollment figures are based on those enrolled on October 15, 2009. During 2009 527 students were actually admitted to a PN program, considerably more than the 450 enrolled on October 15th. Overall, in the past 8 years, PN enrollments have tended to remain static especially when compared to the rapid increase in RN enrollments. There appears to be an increased demand for PN programs in the past 3 years as reflected in the number of qualified students who were not admitted (140 in 2007, 213 in 2008, 398 in 2009). If demand for LPN programs remains high, the state should be able to sustain or increase enrollments for the future as most of these programs do not rely upon public funding. There has been interest from some private entities in opening an LPN program in AZ.

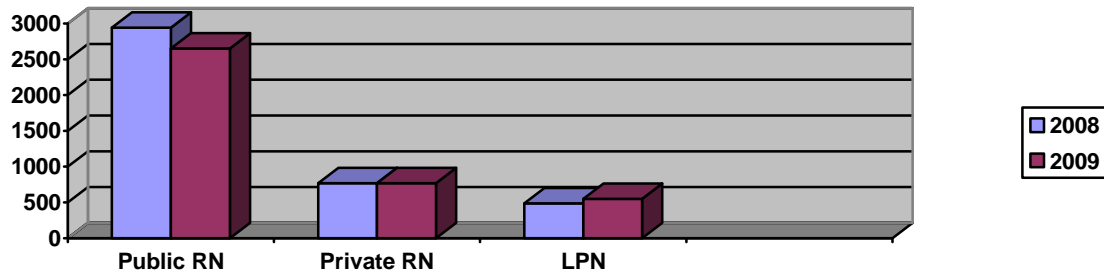
PRACTICAL NURSING PROGRAM ENROLLMENTS



PROGRAM CAPACITY AND ADMISSIONS

Nursing program capacity **decreased** by 5.4% from 4198 in 2008 to 3970 in 2009, a loss of 228 placements. This is thought to be due to some programs cutting back on admissions for budgetary reasons (ASU) and some programs closing (Brookline; MCCDNP Rio Salado). Indeed if one examines the chart below, it can be seen that the largest decreases in capacity were in public RN programs, those programs for which there is the greatest demand. Capacity decreased by 9.8% (290 students) in public RN programs. Private RN programs remained stable with a net loss of one placement (769 vs. 768) while LPN capacity rose 13% from 488 to 551 (63 placements). Two LPN programs did not admit to capacity.

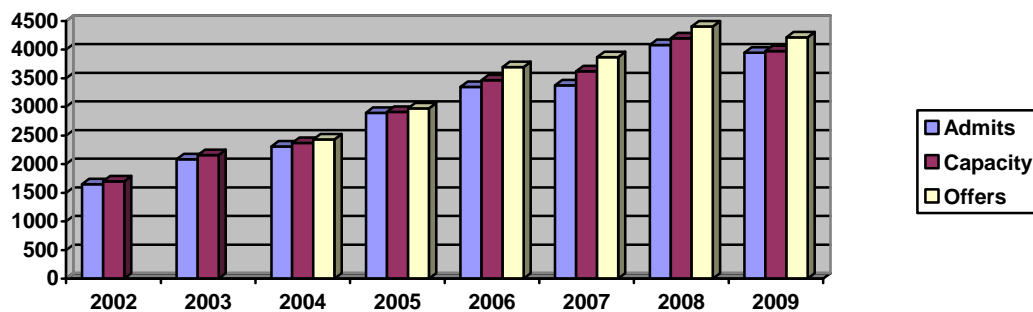
Nursing Program Capacity



In 2009, admissions into all types of nursing programs decreased 3% with 137 fewer students admitted (3943 vs. 4080). At 2291 more students this is still a 139% overall increase in admissions since 2002 (1652 admissions). For 2004 through 2009, programs were asked to provide data on how many students were offered placements. Placements offered exceeded capacity in all years indicating that programs are over-filling their placements in anticipation that not all students offered a placement will register and attend.

Total Nursing Program Admissions

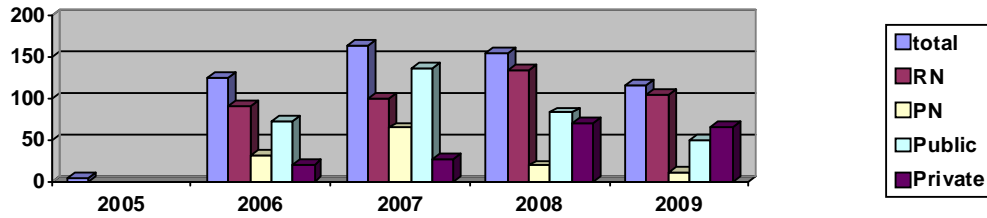
These admission data do not include students admitted to other than the first session of the nursing program, such as LPNs enrolling in the 3rd semester of an RN program.



Total Unfilled Placements

There were 116 unfilled student placements in all AZ nursing programs in 2009 a decrease from the 154 in 2008. Open placements generally occur because persons who register do not attend (no shows) or in programs that do not attract sufficient qualified candidates to fill their projected enrollments. Of the unfilled placements, 105 were in RN programs and 11 in PN programs. The majority of unfilled placements for RN programs in 2009 were in the private sector (66 of 105). Two programs, Apollo College and University of Phoenix account for 35 of those open placements. The unfilled placements in 2009 are less than reported in 2006-2008 years but considerably more than the 5 that were reported in 2005.

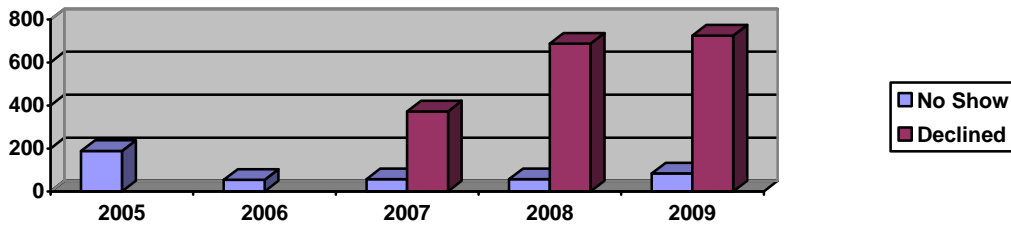
Unfilled Placements



Persons who declined a placement and “no shows”

The number of students who registered for the first semester of a nursing course and did not attend (no show) was measured for the first time at 2005 at 189. In 2006 this number decreased to 54, and stabilized in 2007 and 2008 (57 and 58). In 2009 this increased to 85. This may be the result of an unstable economy where the student does not have the resources to attend school. These “no shows” represent over half of the unfilled placements in 2009 and typically occur suddenly, without sufficient time for “wait-listed” students to be placed. The Board has also been informed that many prospective students decline a late placement yet remain on the “wait list”. In 2009, 752 students declined placement in a nursing program. This is an increase of 9.5% or 65 students from 2008 (687 declined in 2008). This is nearly double the declined placements in 2007. Reasons for declining include: changing to another field, acceptance into another nursing program, inability to afford the program, only able to attend a week-end or evening program, or insufficient notice to attend at the time of the offered placement.

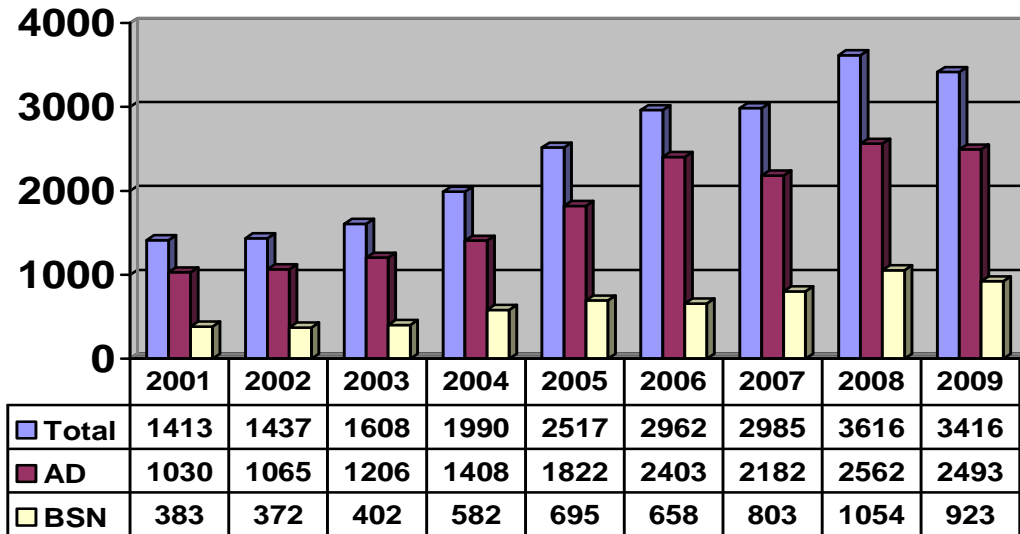
Potential Students who Declined or Failed to Attend



Registered Nursing Program Admissions

Registered nursing program admissions to the first semester of a nursing program were totaled and classified by type of program (Associate Degree/Baccalaureate). For the first time since these data have been collected, total RN program admissions decreased in 2009 by 200 students (5%). Since 2001, total RN programs admissions increased by 141% (an additional 2003 students). Baccalaureate (BSN) program admissions decreased by 12% in 2009 (131 students). Associate degree program admissions decreased by 2.6 % (69 students in 2009). BSN admissions accounted for 27% of total admissions in 2009 versus 29% in 2008. Funding cuts were responsible for decreased admissions to public BSN and AD nursing programs in 2009. In fact admissions to private RN programs increased in 2009 from 695 in 2008 to 729 (5%), the only RN sector to increase admissions. Private schools are less affected by funding cuts but may not attract large numbers of students due to tuition costs and the provisional approval status of many of the newer programs.

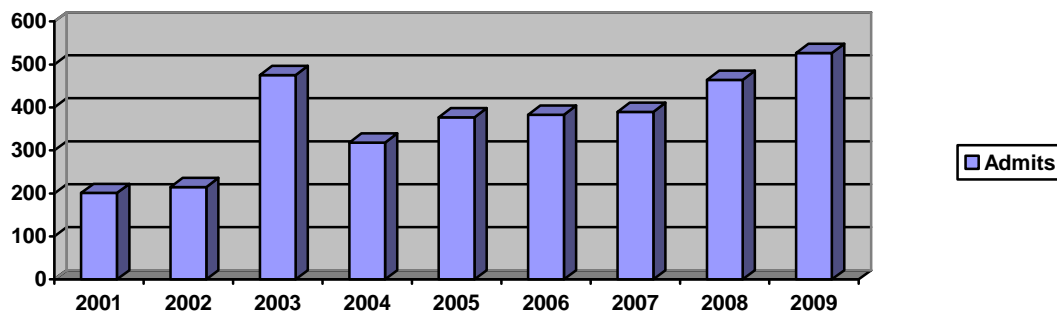
RN Admissions By Program Type



Practical Nursing Program Admissions

Practical nursing program admissions increased by 13.6 % in 2009 (63 students). There were few open placements on the first day of class in LPN programs (11). Demand for some LPN programs increased in 2009 and admissions are the highest they have been in 9 years.

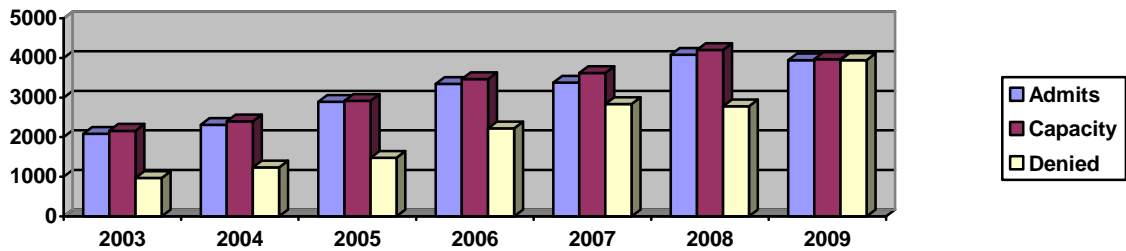
PN PROGRAM ADMISSIONS



QUALIFYING APPLICATIONS DENIED/DEFERRED

The number of students admitted was compared with the number of qualified applications that nursing programs denied or deferred for the semester or session that the applicant requested. In 2009 there were an unprecedented 3946 nursing program applications that were not accepted or deferred due to insufficient openings in the program. This is a 42% increase in the demand for nursing programs (1166 additional applications) in a year. Unlike 2008 when a slight decrease was seen, this year the queue for nursing programs has skyrocketed. Ninety percent (3548) of these applications were for RN programs. Of the all applications, 2049 (52% of the total pool) were submitted to the Maricopa District Nursing Program. This program with 9 sites places qualified applicants in a queue guaranteeing admission based on program preference and application submission date. In contrast, Pima Community College in Tucson only accepts applications for future semester admissions, therefore all qualified students are admitted to the semester in which they apply although that semester may be a year or 18 months in the future. Some prospective students elect to remain in the queue for a specific program offering, such as part-time night program. Due to differing admission standards, a student may qualify for admission in one program and not qualify for admission in another program. Many students also apply to multiple programs simultaneously. Taking into consideration the above factors, the number of qualified applications reported as denied/deferred is most certainly only an estimate of the number of actual students who were denied/deferred. It appears that there was an increased demand for nursing programs in 2009 which may be due to the economic downturn and the perception that RN jobs are plentiful and “recession-proof”. With reports of unemployment among newly licensed RNs in Arizona estimated at 21% (Randolph, 2010), demand for RN programs may lessen in the future.

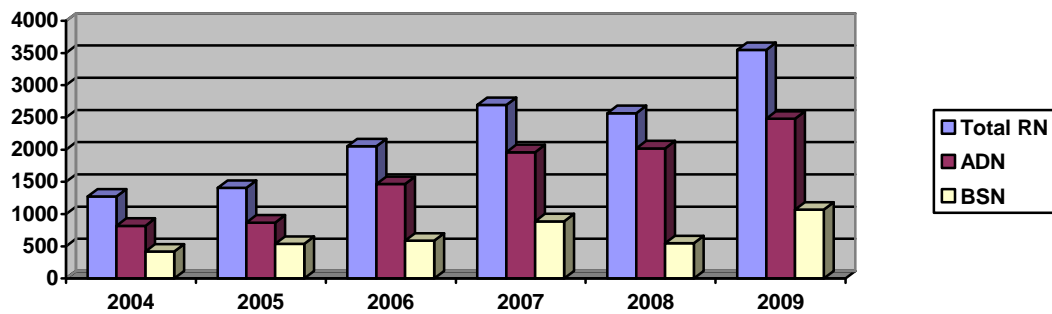
Qualified Applications Not Admitted



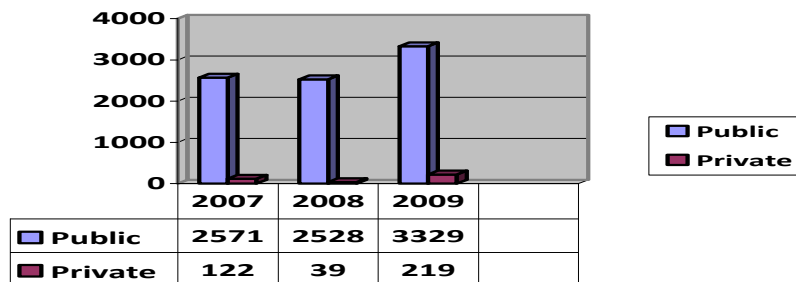
RN Programs

For RN programs, there were 3548 qualified applicants who were not admitted to the semester for which they applied. Programs with the largest number of qualified applicants that were not admitted were the Maricopa Community College District Nursing Program (MCCDNP) (2049), Arizona State University (367), University of Arizona (276) and Northern Arizona University (276). Other programs that turned away over 100 applicants are Chamberlain College (115) and Arizona Western College (105). Other than the MCCDNP program, demand remains highest for baccalaureate programs. In 2009 6% of the denied applications (219) were denied by private schools as opposed to 5% (39) in 2008. However only 3 of the 9 nine approved private RN nursing programs turned away students: Chamberlain (115), Pima Medical Institute--Mesa (65) and Grand Canyon University (36).

RN APPLICATIONS NOT ACCEPTED



Public vs. Private Qualified Applications Not Accepted

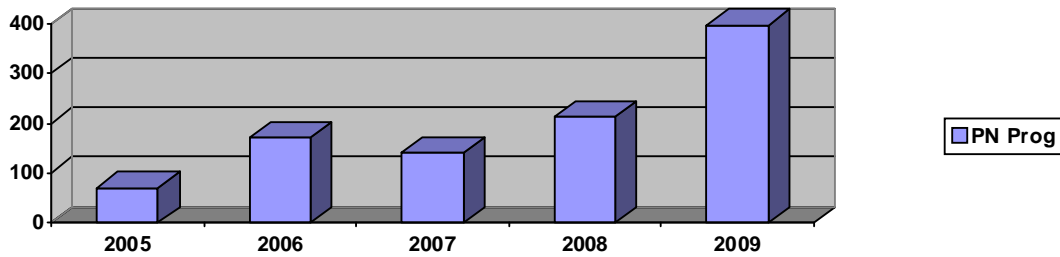


PN Programs

There were 398 qualified applicants that were not admitted to a practical nursing program in 2008, an increase of 87% (185 applicants) from the 213 applications not admitted in 2007. Three of the five programs account for this (Estrella Mountain/Southwest Skill Center; GateWay Fast Track, and Maricopa Skill Center). Estrella Mountain /SouthWest Skill Center turned away 213

applicants; GateWay Fast Track Program turned away 106 and Maricopa Skill Center turned away 79. It is interesting to note that the other two LPN programs did not admit to capacity (Pima CTD and EVIT). Prior to 2005, no qualified applicants to a PN program were denied admission.

PN Qualified Applications Not Admitted

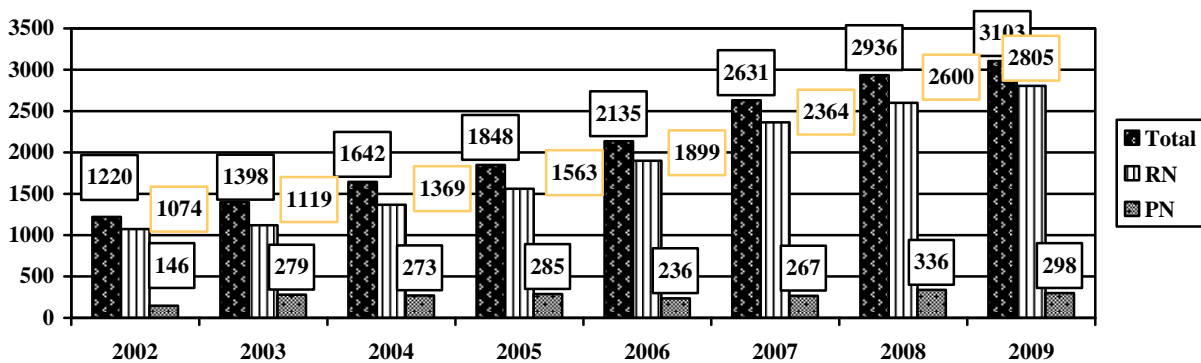


PROGRAM GRADUATES

Total Graduates

In 2009 there was a modest 6% increase in graduates from all nursing programs (167 students). There was a 7.8% increase in RN graduates (205 students) and an 11% decrease in PN graduates (38 students).

TOTAL GRADUATES IN ALL PROGRAMS

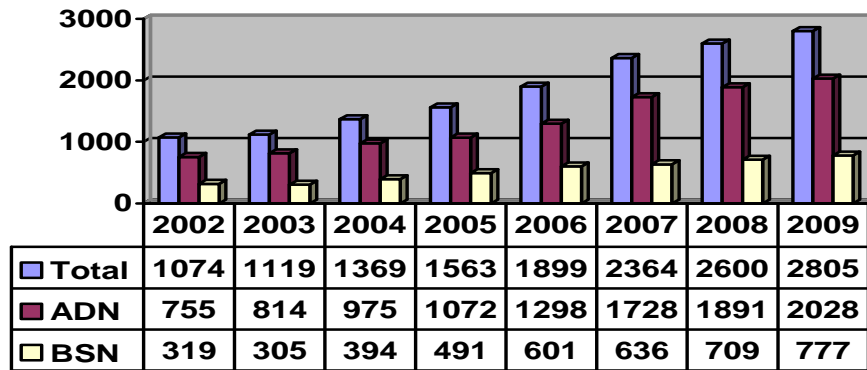


RN Graduates

There was a 7.8% increase in RN graduates in 2009 with increases in both associate and baccalaureate degree graduates. Associate degree graduates increased by 137 students or 7% and baccalaureate graduates increased by 68 students or 9.6%. Limits to growth include budget cuts to public institutions, shortages of faculty and few clinical placements for students. There is a

161% (1731 students) increase in graduates from RN programs between 2002 (1074) and 2009 (2805).

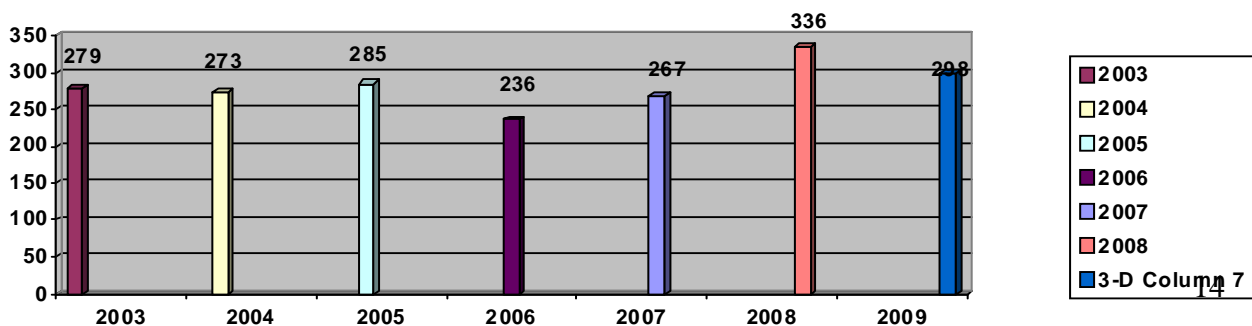
Twenty-eight percent of RN graduates earned a BSN in 2009 which is nearly identical to the proportion of BSN/A.D. graduates in 2007 and 2008, but less than in 2005 (31%) and 2006 (32%). This may be due to the more rapid effects of expansion in a 2 year program versus a 4 year program and the addition of new associate degree nursing programs. Nationally, BSNs accounted for 39 % of RN first-time test takers (NCLEX Reports – 2009—58% AD, 3% Diploma). Some experts suggest that the ideal mix of bachelors degree prepared nurses to associate degree prepared nurses is 60/40 (Aiken). The National Advisory Council on Nurse Education and Practice (NACNEP), policy advisors to Congress and the US Secretary for Health and Human Services on nursing issues, has urged that at least two-thirds of the nursing workforce hold baccalaureate or higher degrees in nursing by 2010 (AACN, 2007).



Eighty-seven percent (2445 students) of RN graduates finished in the time allotted for their program. Twelve percent (334) of the graduates took extra time to finish the program with only 26 students (1%) taking more than 150% of the allotted program time. This is a nearly identical to on-time graduates from 2008. The proportion of graduates who finished on time has fluctuated between 77-87 percent since 2004. In comparing graduate data with attrition, the 87% of the class of 2008 who graduated on-time, represent 76% of the potential on-time graduates based on numbers of students admitted to these cohorts (see attrition section). This means that 76% of all admissions to RN programs graduated in the optimal time-frame.

PN Graduates

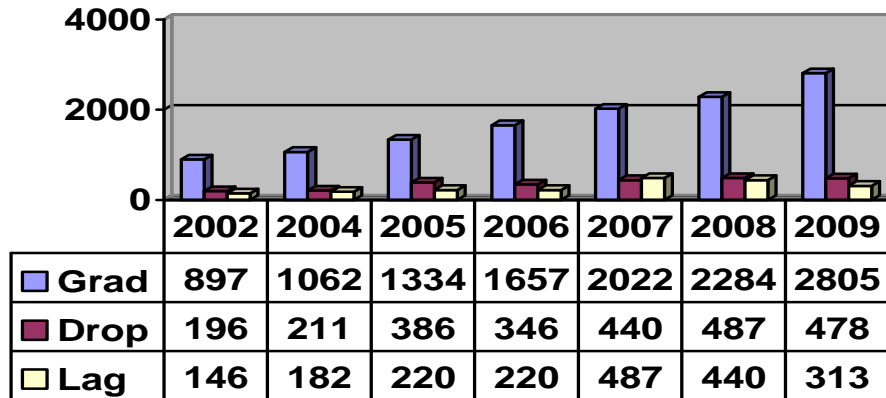
There was a 14% decrease in PN graduates in 2009. Eighty-four percent completed on time; thirty-nine students (13%) took longer with eight students (3%) exceeding 150% of the allotted time.



Attrition – RN Programs

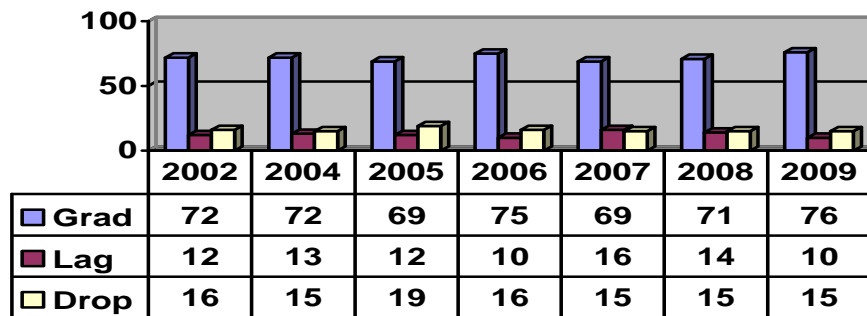
In 2009, 76% of students admitted to RN programs graduated on schedule. Ten percent are still enrolled, and 15% dropped out of the program. This is a somewhat better in terms of graduating on time than previous years. The 2009 RN graduating cohorts consisted of 2445 students who finished their program on time.

RN Attrition Number of Students and Category



RN Student Attrition by Percent

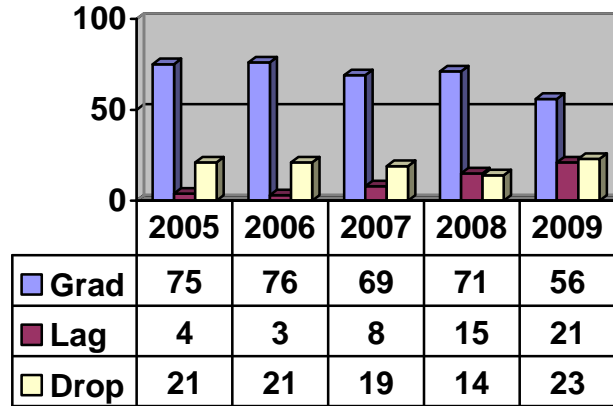
Cohorts--Percent who graduated on time/lagged/or dropped



Attrition—PN Programs

There was considerable attrition in PN classes in 2009 as only 56% of those admitted graduated on time. Twenty-one percent of admitted students dropped out of the program and 23% are lagging behind. This is a greater attrition rate than in 2008 where 71% of the PN students (293 students) finished the program in the optimal amount of time.

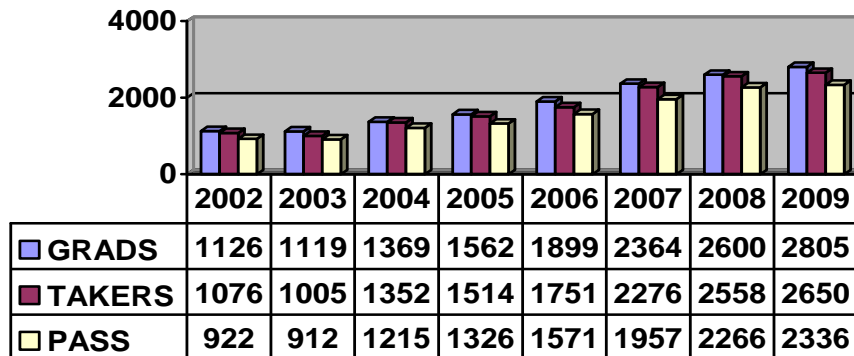
**Percent of PN students who graduated
on time/lagged/or dropped**



NCLEX ® RN Exam

In comparing takers and passers of the National Council Licensure Examination for Registered Nurses (NCLEX-RN), there were 3% more takers in 2009 than in 2008, and 3% more passers on the first try. The overall pass rate in Arizona for NCLEX-RN was 89.28% in 2009. The high passing rate is expected to decrease by approximately 3% in 2010-2011 due to an increase in the national passing standard. In comparing numbers of persons taking the exam with numbers of graduates it should be remembered that the number of students graduating in any year will differ from the number of NCLEX takers as students graduating in December do not take NCLEX until the following year. There are very few graduates who do not take the NCLEX exam.

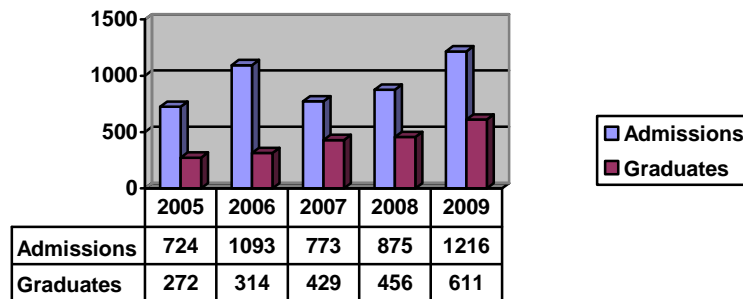
NCLEX RN



RN to BSN Program Admissions

In previous years it was noted that there was considerable attrition or lagging on RN-BSN admissions versus graduations. When asking programs to complete this question in 2009, the question was changed to “admitted and enrolled” in the program. Information provided by the programs suggested that many students are admitted who never enroll/attend the program accounting for high attrition rates. Arizona RN to BSN programs admitted 1216 students in 2009, a 38% increase from 2008 and the highest number admitted since collecting these data. Admissions are underestimated for the state as only pre-licensure programs with an RN to BSN track were surveyed. Programs with only an RN-BSN track are not under the Board’s jurisdiction. Two programs accounted for most of the admissions: Grand Canyon University with 862 admissions and University of Phoenix at 235 admissions.

RN to BSN Admissions and Graduates



Graduates – RN to BSN

Graduates of RN to BSN programs increased 34% in 2009. Since first gathering these data in 2004 (126 graduates) there has been 385% increase in graduates. This significant increase in RN to BSN enrollments and graduates appears to be sustainable, at least in the near future, but numbers are still small compared to overall graduates that the effect on the mix of associate degree nurses to baccalaureate degree nurses in Arizona is difficult to ascertain. Levels of education extracted from licensing data in May 2010 indicate that only 23% of RNs in Arizona have a BSN or MSN (69,729 licensees; 11913 BSN; 4114 MS).

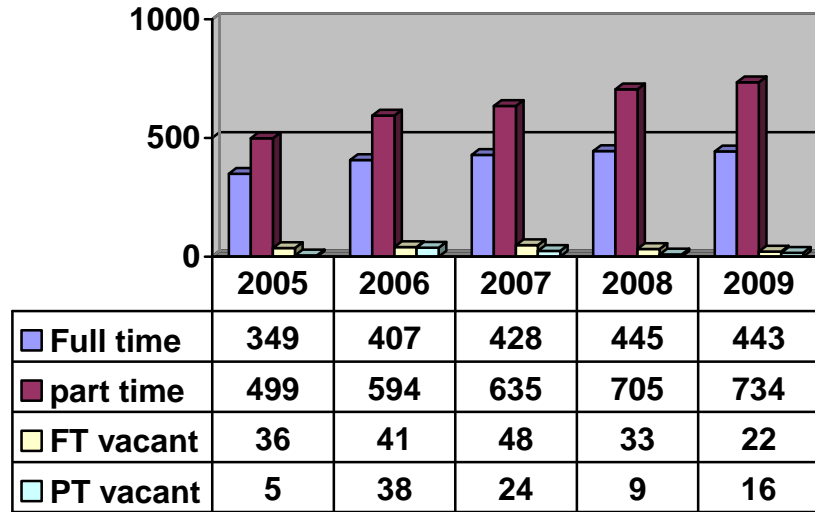
NURSING PROGRAM FACULTY

At the time of data measurement, there were 443 full-time faculty members in AZ nursing programs. This is a very slight decrease from 2008 (445 full time faculty in 2008; 428 in 2007). There are 734 part time faculty members, an increase from 705 in 2008. There are 1.7 part time faculty members for every full-time faculty member.

There were fewer full time vacancies than in 2008 or 2007 (22 vs. 33 vs. 48). There were 16 unfilled part-time positions in 2009 as opposed to 9 in 2008. In 2009 programs appear to either have enjoyed greater success in recruiting full-time faculty or, due to cuts to admissions, have less need for full time faculty. Programs were asked to provide their average faculty-to-student

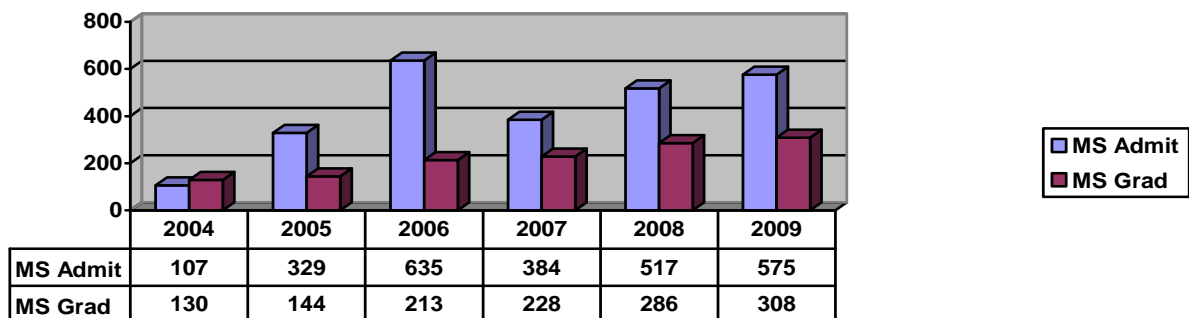
ratio in didactic courses. Full-time (didactic) faculty to student ratios ranged from a high of 1:34 at Pima Medical Institute (Mesa) to a low of 1: 13 at Everest College. The average ratio was 1:23 as opposed to 1:24 in 2008.

Filled Faculty Positions and Vacancies by Year



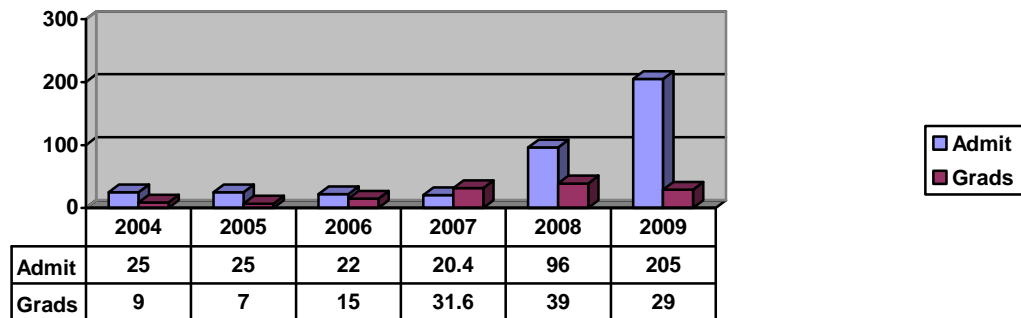
GRADUATE NURSING EDUCATION

Admissions and graduates from master's degree nursing programs increased in 2009 by 11% and 8% respectively. There were 575 persons admitted to master's in nursing programs, somewhat less than the 635 admitted in 2006. Admissions to master's programs have more than quadrupled since 2004. Similarly, graduates of master's in nursing programs have more than doubled since 2004. Master's program admissions may decrease in the future with a subsequent increase in doctoral program enrollments due to a trend for universities to offer advanced practice studies only within a doctorate of nursing practice (DNP) program.



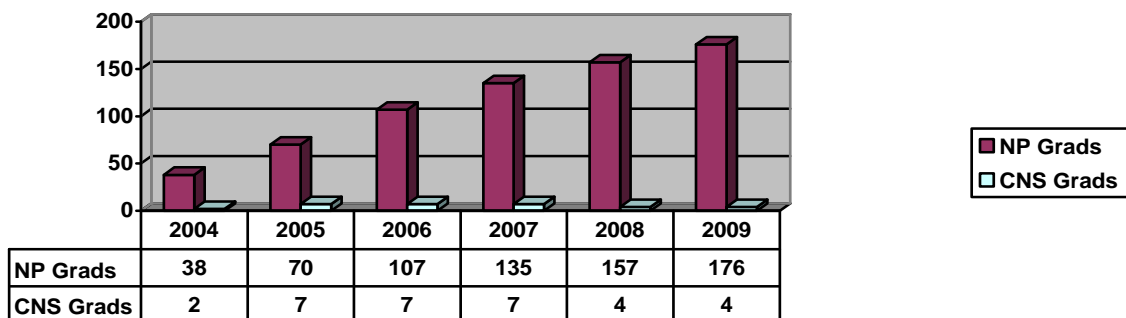
Doctoral Admissions and Graduates

Two AZ nursing programs admit doctoral students: Arizona State University and University of Arizona. Arizona State started admitting in 2005 but admissions did not significantly increase until the implementation of the doctor in nursing practice (DNP) program in 2008. Admissions to doctoral programs more than doubled in 2009. Ten of the 29 graduates of doctoral programs received the DNP. Increases in graduates of doctoral program should be seen in 2011.



Advanced Practice Graduates

Although programs continue to offer graduate education in the clinical nurse specialist (CNS) category, very few students choose this option. CNS graduates have numbered less than 10 each year while graduates of nurse practitioner programs more than quadrupled from 38 in 2004 to 176 in 2009.



SUMMARY

The systematic and routine collection of nursing program data will assist the Arizona Board of Nursing, nursing programs, nurses, and the public in understanding nursing education enrollment trends and in setting realistic workforce goals. Registered nursing program admissions decreased in 2009 due mainly to budget cuts in public programs. RN graduates and NCLEX takers continued to increase in 2009 due to past expansion of existing programs and the establishment of new programs. The number of potential students on the waiting lists or denied admission to programs is alarmingly high at nearly 4000. There is a growing trend to enroll in doctorate of nursing practice programs. Despite the current estimated 21% unemployment rate among new graduates (Randolph, 2010), there continues to be a projected need for nurses well into the next decade with predicted shortages as the economy recovers (Buerhaus, Staiger & Auerbach, 2009). There is also a need for a highly educated nursing workforce (AACN, 2007). The continued low ratio of bachelors to associate degree graduates will limit Arizona's response to future shortages as fewer nurses are positioning themselves for advanced practice or teaching positions. The need for sustained and continued growth of the RN workforce in Arizona is well documented. Cooperation and dedication of resources from government, education, and service will be required to support the education of a sufficient number of new nurses and nurses with advanced degrees to meet state and national health care needs.

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