NEW JERSEY'S EDUCATIONAL CAPACITY: 2008 RN DATA REPORT

I. Introduction

The New Jersey Collaborating Center for Nursing (the Center), an entity created and funded by statute (2009,c47), is a future-oriented research and development organization that develops and disseminates objective information and recommendations for the development of an adequate nurse workforce in both education and numbers. One of the Center's initiatives is to conduct an annual survey of all the nursing schools in New Jersey to measure and monitor student enrollments, graduations and demographics, as well as data regarding New Jersey nursing faculty. The information presented below reflects survey responses for 2008 from 100% of the nursing schools (n=38) educating pre-licensure students to enter the nurse workforce for the first time. We refer to these schools as RN-producing schools, and those schools that enroll and graduate student that are already RNs and earn a baccalaureate or higher nursing degree as RN-enhancing schools. These students are already in the workforce and do not add to the supply. This report focuses only on those nurses entering the workforce for the first time.

II. Applications and Enrollments

There are 15 associate degree, 10 hospital diploma, and 15 baccalaureate programs that educate pre-licensure students in New Jersey. These schools together received at least 17,665 applications in 2008 academic year. Only about half (52.4%) of those applications met the entrance criteria for that institution. As the interest in nursing far exceeds the capacity of the schools to educate nurses, some applicants may apply to more than one prelicense program, in an effort to increase their chances of being accepted. However, without identification of the students, there is no way to determine what proportion of the total number of applications might be due to duplicate applications. However, the data suggest that only about half of all applicants in 2008 were actually qualified for the programs to which they applied.

Of the total number of qualified applicants to pre-licensure associate degree, diploma, and baccalaureate programs, slightly more than half (52.4%) were admitted to the schools to which they applied. This is consistent with findings from a national study conducted by the American Association of Colleges of Nursing in 2008. However, among New Jersey programs, the proportion of students accepted is much higher for hospital-based diploma programs than for associate or baccalaureate programs. Of all the qualified applicants offered admission into a prelicense nursing program in New Jersey, 77.5% actually enrolled. However, this statistic also varies widely by program type, as illustrated in Table 1 below.

Table 1. RN-Producing Program Applicants, Admissions and Enrollments in 2008

	Associate Degree Programs	Hospital Diploma Programs	Prelicense Baccalaureate Programs	All pre-license RN programs
	N = 15	**N = 10**	**N=13**	**N=38**
Total number of applications to the program	6,203	3,375	8,087	17,665
Number of applicants returning after an absence	106	42	38	186
Number of qualified applicants *	3,442	1,559	4,262	9,263
Percent of total applications deemed qualified	55.5%	46.2%	52.7%	52.4%
Number of qualified applicants admitted	1,679	1,272	1,901	4,852
Percent of qualified applicants who were admitted	48.8%	81.6%	44.6%	52.4%
Number admitted who actually enrolled	1,645	1,104	1,011	3,760
Percent of those admitted who actually enrolled	98.0%	86.2%	52.2%	77.5%

* Each program determines whether applicants meet the entrance criteria for their program.

..III. Student Demographics

 On October 15, 2008 there were a total of 8,611 students enrolled in RN-producing programs in New Jersey. About 40% of those students were enrolled in associate degree programs, about 37% in baccalaureate nursing programs, and the remaining 23% were in hospital-based diploma programs. Licensed Practical Nurses (LPNs) seeking professional mobility to the RN license are most likely to be enrolled in associate degree programs, although some are enrolled in diploma programs. To date there are no LPN to baccalaureate programs available in New Jersey. Table 2 reports these numbers as well as the demographic characteristics of the student body in each type of RN-producing program, as well as the total number enrolled.

The gender balance between females and males was consistent across the different program types. The racial diversity of students also is similar across program types. The figures reported in Table 2 suggest that baccalaureate programs may attract a larger portion of students with an Asian or Pacific Islander background, however, the numbers represent estimates of these enrollments. The biggest difference in student characteristics in RN-producing programs in New Jersey is seen in the age profiles. As expected, baccalaureate programs have the youngest study body, with 75% of their students under the age of 26, while associate degree programs have the oldest student body with 21.2% of their students over the age of 40. Overall, however, about half of the students in RN-producing programs are under the age of 26; please see Table 2 below. It should be noted that the percentages may exceed 100% due to rounding.
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Table 2. Prelicense RN Program Enrollment on October 15, 2008 and Student Demographics

	Associate Degree Programs		Diploma Programs		Prelicense Baccalaureate Programs		All prelicense RN Students	
Total students enrolled	**3,409**		**1,974**		**3,228**		**8,611**	
	#	**%**	**#**	**%**	**#**	**%**	**#**	**%**
Student Type								
LPN-RN	256	7.5	73	3.7	na		329	4%
Generic RN	3,153	92.5	1,901	96.3	3160	85.3	7797	90%
Accelerated	na		na		485	14.7	485	6%
Student Type Totals	*3409*	*100*	*1974*	*100*	*3228*	*100*	*8611*	*100*
Gender:								
Female	3,017	88.5	1,685	85.4	2815*	87.2	7,517	87.3
Male	392	11.5	289	14.6	413*	12.8	1,094	12.7
Gender Totals	*3409*	*100*	*1974*	*100*	*3228*	*100*	*8611*	*100*
Race								
White, non-Hispanic	1,996	58.6	1,053	53.3	1,244*	38.3	4,293	49.9
Black, non-Hispanic	568	16.7	307	15.6	554*	16.1	1,429	16.2
Asian / Pacific Islander	355	10.4	327	16.6	691*	22.0	1,373	16.1
American Indian / Alaska Native	11	0.3	6	0.3	8*	0.2	25	0.3
Hispanic, any race	352	10.3	247	12.5	382*	12.2	981	11.5
More than one race	36	1.1	6	0.3	20*	0.6	62	0.7
Race unknown	91	2.7	28	1.4	329*	10.5	448	5.3
Race Totals	*3409*	*100.1*	*1974*	*100*	*3228*	*99.9*	*8611*	*100*
Age Groups								
Under age 26	1,065	31.2	770	39.0	2,434*	75.4	4,269	
Age 26 to 30	680	20.0	443	22.4	397*	12.3	1,520	
Age 31 to 40	941	27.6	455	23.1	294*	9.1	1,690	
Age 41 to 50	642	18.8	246	12.5	90*	2.8	978	
Age 51 to 60	80	2.4	60	3.0	13*	0.4	153	
Age 61 or older	1	0.02	0	0	0*	0	1	0.0
Age Totals [a]	*3409*	*100.02*	*1974*	*100*	*3228*	*100*	*8611*	*100*

a   Several associate degree programs did not report some or all students by their gender, race and/or age categories. In those cases values have been imputed based on the program's total enrollment figures and the way students are distributed across categories in programs that did report the information. One diploma program did not report students by age categories. Values were imputed for that program following the same procedure.

*   In baccalaureate programs student counts by gender, race, and age sometimes were missing, but not always in a consistent way. Percentages in this table were computed on the programs that did provide data. The counts in the this table were computed from the percentages applied to the total enrollment of prelicense BSN students. Therefore, they are estimates.

During 2008, a total of 2,951 students graduated from RN-producing programs in New Jersey: 42.2% from associate degree programs, 34.2% from baccalaureate programs and 23.6% from hospital-based diploma programs. This distribution of new graduates is very similar to the

distribution of all enrolled students as of October 15, 2008. Table 3 reports these figures and the demographic characteristics of recent graduates.

IV. Graduate Demographics

Table 3. RN-Producing Program Graduates in the -2008 and Graduate Demographics

	Associate Degree Programs		Diploma Programs		Prelicense Baccalaureate Programs		All Prelicense RN Students	
Total students graduated	**1,249**		**698**		**1004**		**2,951**	
	#	%	#	%	#	%	#	%
Student Type								
LPN-RN	150	12.0	14	2.0	na		164	5.5
Generic RN	1,099	88.0	684	98.0	647	64.3	2,430	82.2
Accelerated	na		na		357	35.7	357	12.2
Student Type Totals	*1,249*	*100*	*698*	*100*	*1004*	*100*	*2951*	*99.9*
Gender:								
Female	1,119	89.6	603	86.4	899	89.5	2,621	88.8
Male	130	10.4	95	13.6	105		330	
Gender Totals	*1,249*	*100*	*698*	*100*	*1004*	*100*	*2951*	*100*
Race								
White, non-Hispanic	893	71.5	383	54.9	424	41.8	1,700	58
Black, non-Hispanic	153	12.2	100	14.3	169	16.7	422	14
Asian / Pacific Islander	72	5.8	133	19.1	160	16.3	365	12
American Indian / Alaska Native	1	0	0	0	1	0.1	2	0.7
Hispanic, any race	73	5.8	70	10.0	67	7.1	210	7
More than one race	7	0.6	1	0.1	5	0.5	13	0.4
Race unknown	50	4.0	11	1.6	178	17.6	239	8
Race Totals	*1249*	*99.9*	*698*	*100*	*1004*	*100.1*	*2951*	*100.1*
Age Groups								
Under age 26	237	19.0	216	30.9	595	58.7	1,048	35.51
Age 26 to 30	281	22.5	161	23.1	214	21.6	656	22.39
Age 31 to 40	406	32.5	200	28.7	138	13.6	744	25.
Age 41 to 50	267	21.4	99	14.2	51	5.5	417	14.3
Age 51 to 60	46	3.7	22	3.2	6	0.6	74	2.5
Age 61 or older	12	1.0	0	0.	0	0	12	0.4
Age Totals [a]	*1249*	*100.1*	*698*	*100.1*	*1004*	*100*	*2951*	*100.1*

* In BSN programs graduate counts by race and age sometimes were missing, but not always in a consistent way. Percentages in this table were computed on the programs that did provide data. The counts in the this table were computed from the percentages applied to the total enrollment of prelicense BSN students. Therefore, they are estimates.
Note: Percentage sums may exceed 100% due to rounding.

Hospital-based diploma programs graduated a higher proportion of males than either associate degree programs or pre-licensure baccalaureate programs, which is consistent with the

enrollment data that those programs reported (see Table 2 for those numbers). As a group, graduates from associate degree programs were less racially diverse than the graduates from diploma or baccalaureate programs. Moreover, their graduates were older, as a group: 26.1% of their 2008 graduates were over the age of 40, compared to 17.4% of diploma program graduates, or 6.1% of prelicense baccalaureate graduates.

V. Trends in Graduations

The data seem to indicate certain trends in New Jersey students preparing to enter the RN workforce. For example, although some schools reported unlimited enrollments, most schools have a set number of seats available for new students, with the diploma schools indicating a greater ability to expand enrollments. Looking at the data over time, however, suggests that the schools have maximized the enrollments as much as they possibly can; Given the trend illustrated in the data, the diploma schools have decreasing enrollments as schools close or are converted to degree granting institutions, while the baccalaureate schools have gradually increased their enrollments over time and are still turning away qualified students. The associate degree schools appear to be holding their own. Most likely, given the beginning decrease in enrollments and limited enrollments, the graduations (below in figure 1) continue to increase but will most likely decrease over time.

Figure 1.. RN-Producing Graduations
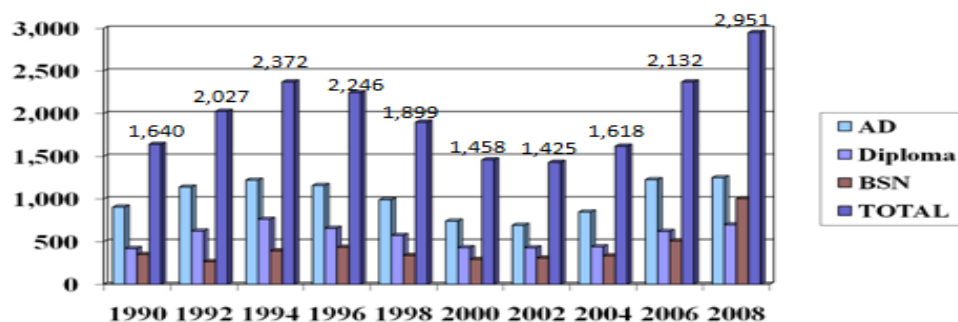
Source: NJCCN

A major concern now is preparing and attracting enough nurses to qualify for faculty positions. The salary disparity between salary for a graduate educated nurse in practice and one in academia is a disincentive for some graduate-prepared nurses. The financial and human cost of graduate education may discourage some nurses from preparing for a full time faculty position.

V. Faculty Characteristics

When examining faculty characteristics in baccalaureate educational programs, it is important to remember that the numbers may include faculty dedicated to other nursing programs than the generic baccalaureate programs. All of the 18 baccalaureate programs have RN to BSN programs; while 13 baccalaureate programs also offer graduate-level degree programs.

Table 4 outlines the vacancy rate for full-time faculty positions as of October 15, 2008. The overall rate of 5.6% for all professional nursing programs in New Jersey is midway between the rates in associate and baccalaureate degree programs. Diploma programs, on the other hand, reported a vacancy rate of only 3.2% for their full-time faculty. A study released by the

American Association of Colleges of Nursing in 2008 reported a national vacancy rate of 7.6% for schools with baccalaureate and/or graduate programs across the country – slightly higher than the 6.5% vacancy in baccalaureate faculty reported in our study.

Table 4. Full-Time Faculty in RN Nursing Education Programs as of October 15, 2008

Faculty Characteristics	Associate Degree Programs	Diploma Programs	Prelicense Baccalaureate Programs *	All Programs
Total FTE faculty	169.0	155.1	262.25	586.35
Full-time faculty employed	164	127	276	567
Full-time faculty vacancies	9	5	18	32
Vacancy rate for full-time faculty	5.3	3.2	6.5	5.6

* One of the 18 baccalaureate programs is an on-line program with no full time faculty, one is a new school and has no nurse faculty, and one RN to BSN school did not respond, therefore, this is based on 15 baccalaureate schools.

Nursing faculty members tend to be older than the general nurse workforce. Examination of the age characteristics of New Jersey's full-time faculty in RN programs reveals that 12.2% of those currently in associate degree programs are age 60 or older; in diploma programs 18.9% of the current full-time faculty members are age 60 or older; and in baccalaureate and higher degree programs the percentage is 22.4%. These proportions suggest the crisis coming in the near future as nursing faculty reach retirement age. Programs responding to the survey attempted to predict how many of their current full-time faculty members will be retiring from nursing education in the next five years. The results are summarized in Table 5, which indicate low numbers in the next two years, but after that faculty retirements are expected to accelerate rapidly.

Table 5. Full-Time Faculty Demographics

Faculty Characteristics	Associate Degree Programs		Diploma Programs		Prelicense Baccalaureate Programs *		All Programs	
Full-Time Faculty Age	#	%	#	%	#	%	#	%
Age 20 - 34	0	0	6	4.7	2	0.7	8	1.4
Age 35 - 44	40	24.4	25	19.7	34	12.3	99	17.5
Age 45 - 54	58	35.4	48	37.8	110	39.9	216	38.1
Age 55 – 59	46	28.0	24	18.9	68	24.6	138	24.3
Age 60 – 64	17	10.4	19	15.0	40	14.5	76	13.4
Age 65 – 69	2	1.2	5	3.9	18	6.5	25	4.4
Age 70 or older	1	0.6	0	0	4	1.4	5	0.9
Totals	**164**		**127**		**276**		**567**	

#Full-time faculty retirements expected:	Associate Degree Programs	Diploma Programs	Prelicense Baccalaureate Programs *	All Programs
in the next year	1	3	3	7
in the next 3 years	12	7	17	36
in the next 5 years	19	24	29	72
Total loss of full-time faculty expected	32	34	49	115
Percent of current full-time faculty expected to retire within the next 5 years:	19.5%	26.8%	17.8%	20.3%

VI. Conclusions

Although the interest in professional nursing programs continues to exceed the capacity of schools, it should be noted that the enrollments have begun to decline slightly, with a major decrease reported in the diploma schools as some have closed or converted to degree granting institutions. This seems to point to a trend of decreasing graduations; the faculty data indicate a major need to replace retiring faculty in the next few years. Continued monitoring of the professional nursing programs in New Jersey is necessary to maintain an adequate pipeline of students entering the nurse workforce. Stay tuned as we move forward to identify the future trends in student enrollments, graduations, as well as the supply and demand for the nurse workforce.