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ABSTRACT

In 1987, a study was conducted of Maryland's Prince George's Community College's (PGCC's) associate degree in nursing program. The study investigated the enrollment patterns and academic performance of the 272 students identified as nursing majors in fall 1987; program costs; student performance indicators; program completions; licensure examination results; graduate employment patterns; employer evaluations of PGCC nursing graduates; occupational demand forecasts; and other educational suppliers. Study findings included the following: (1) 94% of the fall 1987 nursing students were female, nearly 20% were over age 35, and 42% were black; (2) nursing instruction cost \$5,110 per full-time equivalent student in fall 1987, nearly 58% higher than the average for all occupational disciplines at PGCC; (3) over the last decade, 94% of the students enrolled in a nursing course passed it; (4) of the 106 nursing graduates who took the National Council Licensure Examination for registered nursing, 85% passed; (5) since 1980, 92% of the nursing graduates who responded to follow-up surveys reported employment in nursing positions; (6) a July 1987 report projected statewide employment of nurses to be over 30,700 by 1990; and (7) 27 institutions offer programs in registered nursing in Maryland. Enrollment, survey, outcomes, and cost data are appended. (AYC)

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PROGRAM EVALUATION

NURSING



Report PE88-4

*prepared by the
Office of Institutional Research and Analysis
Prince George's Community College*

Craig A. Claggett

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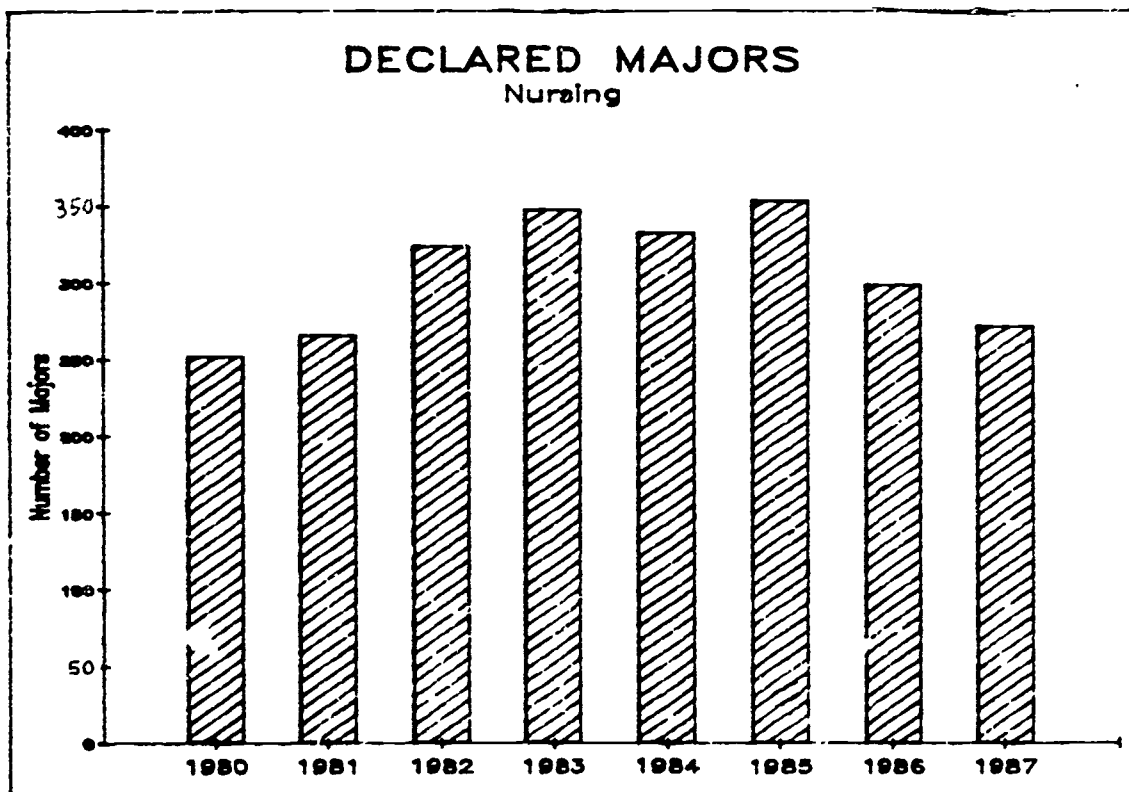


PRINCE GEORGE'S COMMUNITY COLLEGE
Office of Institutional Research and Analysis

ASSOCIATE DEGREE NURSING PROGRAM
Program Evaluation Report 88-4
December 1987

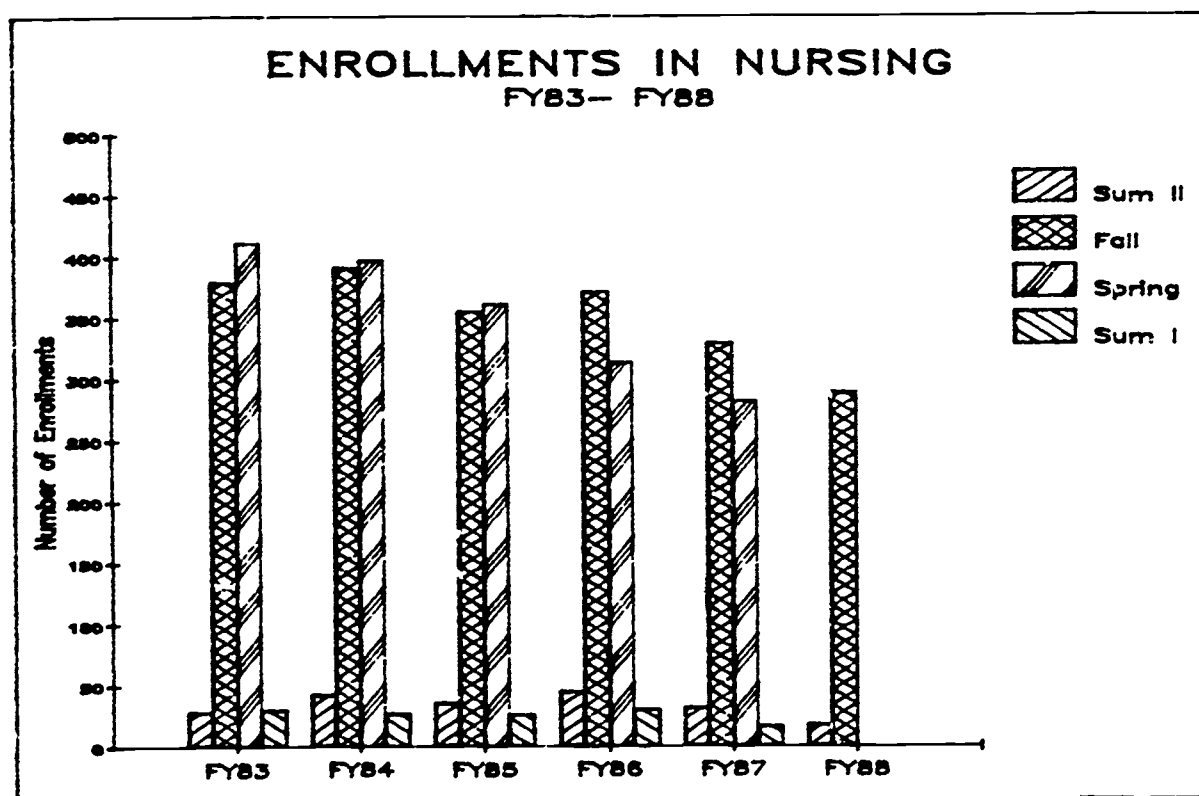
Overview

Prince George's Community College's nursing program is among the largest among the fourteen Maryland community colleges offering an associate degree in nursing (ADN) program. A total of 272 students were identified on the student information system as nursing majors as of the third week in fall 1987. An equal number were petitioning for entry into the program, having failed to meet initial admission requirements. Petitioners in fall 1987 were more likely than program majors to be under 21 years of age, minority, and enrolled in the evening. This report analyzes the enrollment and follow-up performances of students admitted into the nursing program; petitioners are excluded. Most of the fall 1987 nursing students were female (94 percent); nearly a fifth were over age 35. Over forty-three percent were black, a slightly higher percentage black than the college student body as a whole (42 percent). Two-thirds were part-time; three-fourths were exclusively day students.



Course Enrollments and Credit Hour Generation

The 272 nursing majors in fall 1987 enrolled in courses generating a total of 2,790 credit hours. Most of the hours (64 percent) were in nursing courses, with biology (17 percent) and psychology (7 percent) accounting for much of the remainder. (Students petitioning for entry generated over 2,200 hours, 27 percent in remedial coursework.) Fall course enrollments in nursing were down for the second consecutive year, largely a result of a small entering cohort in fall 1986. Enrollments in NUR 151 averaged 92 over the fall 1982-85 period, but fell to 72 in fall 1986. Fall 1987 enrollments in this introductory course rebounded to total 85. Course enrollments in nursing since FY83 are reported in an appended table, and displayed graphically below:

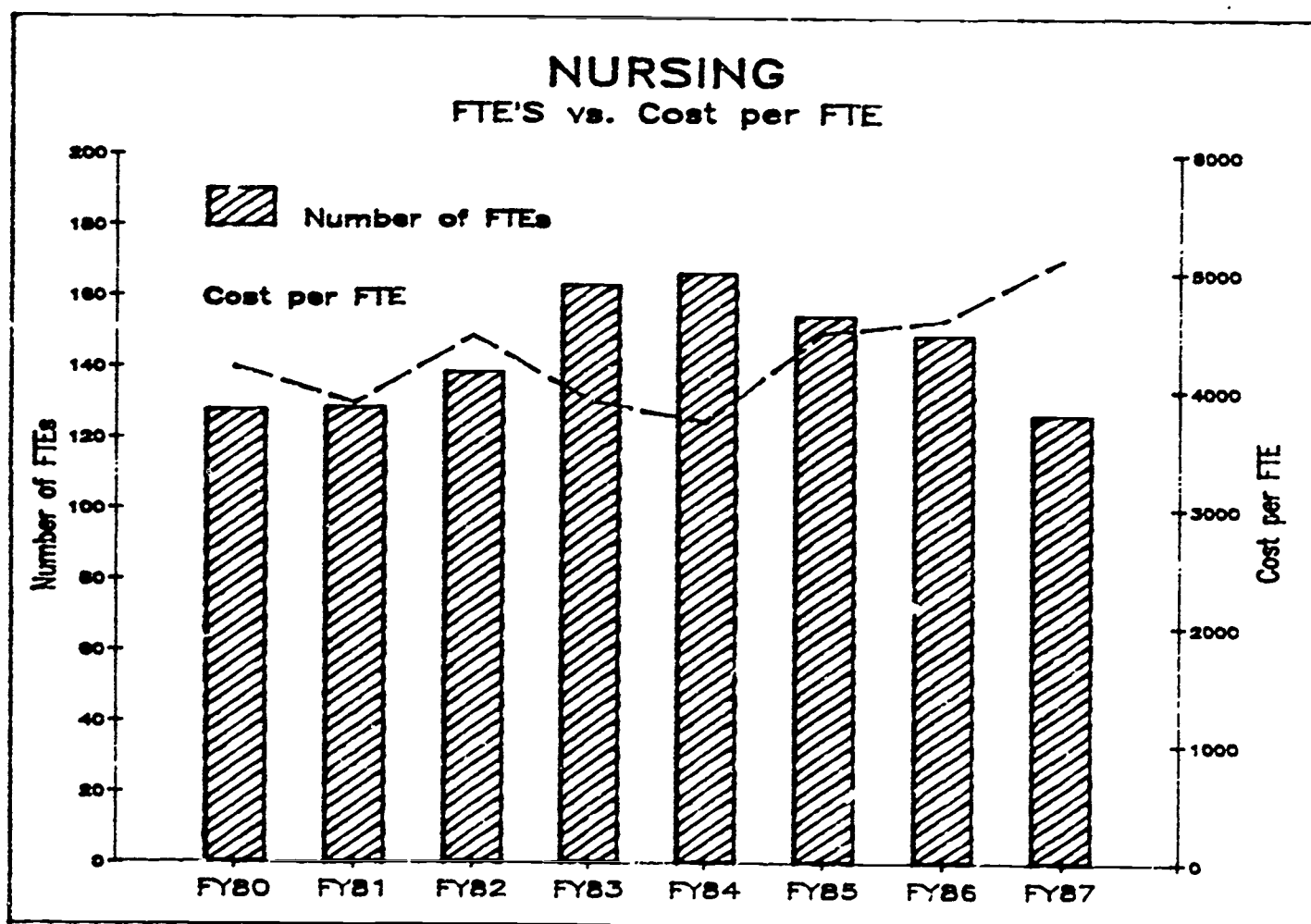


Discipline Cost Analysis

Nursing instruction cost \$5,110 per FTE in fiscal year 1987, nearly 58 percent higher than the average for all occupational disciplines at the college. Excluding overhead, direct instructional costs in nursing were 110 percent above the collegewide average. These high relative costs are largely

explained by the clinical courses, which entail proportionately more contact hours for each credit earned than in most other disciplines. For example, third week fall 1987 nursing courses entailed 3,798 student contact hours but generated only 1,794 student credit hours. This contact-to-credit hour ratio of 2.12 contributes to high unit costs since faculty salaries reflect contact hours while the costs are reported based on student credit hours. (The collegewide contact-to-credit hour ratio in fall 1987 was 1.17.)

After decreasing between FY82 and FY84, per-student costs in nursing have increased the last three fiscal years. As shown in the graph below, these changes reflected changes in FTEs generated in nursing courses. Increasing FTEs over FY82-84 produced declining unit costs, while declining enrollment over FY84-87 yielded increasing costs per FTE:



Inferred Program Costs

The Inferred Program Cost (IPC) reports the total cost of one student completing the degree requirements as specified in the current catalog, based on discipline costs in a given fiscal year. The IPC for nursing in FY87 was \$9,655, up 9 percent from FY86. Higher costs of delivering specialized nursing instruction accounted for 71 percent of the increase in IPC over FY86-87. Program costs for the past seven years follow:

Inferred Program Cost, Nursing, FY81-87

FY81	\$6,777
FY82	7,470
FY83	7,181
FY84	7,268
FY85	8,498
FY86	8,835
FY87	9,655

In recent years, the IPC for nursing has been above the collegewide median but generally below the IPCs of allied health programs in radiography, medical isotope, and respiratory therapy.

Student Performance Indicators

Nursing courses have consistently had among the very highest pass rates (percentage of initial course enrollees successfully completing courses) at the college. Over the last decade, an average of 94 percent of students enrolling in a nursing course have passed it. The average collegewide pass rate during this period was 72 percent. These high pass rates may be related to high term-to-term retention. Eighty-nine percent of the nursing majors enrolled in fall 1986 returned for classes in spring 1987, compared to the collegewide fall-to-spring retention rate of 60 percent.

Program Completions

During the 1970's, PGCC graduated an average of 139 nursing graduates annually. So far the 1980's average is 106 graduates per year. Nearly 46 percent of the graduates from the last three graduating classes have been 30 years of age or older. Sixteen of the 110 FY87 graduates were age 40 or older:

Profile of Nursing Graduates, FY85-87

	<u>1985</u>	<u>1986</u>	<u>1987</u>
Total Graduates	97	109	110
Female	90	100	107
Male	7	9	3
Asian	0	0	6
Black	16	21	41
Hispanic	1	1	0
Native American	0	0	1
White	80	87	62
Under 25 years	17	41	39
25 - 29	29	26	20
30 - 34	17	22	21
35 - 39	17	9	14
40 -44	11	5	10
45 and older	6	6	6

Licensure Examination Results (NCLEX-RN)

PGCC graduates are eligible to sit for the National Council Licensure Examination for registered nurse licensure (NCLEX-RN) administered by the Maryland State Board of Examiners of Nurses. The NCLEX-RN is a national test purchased from the National Council of State Boards of Nursing. The exam is given semi-annually. For program evaluation purposes, the pass rate for candidates taking the exam for the first time is the conventional performance measure. NCLEX-RN pass rates for PGCC graduates since 1980 have been as follows:

Pass Rates of PGCC Nursing Graduates on NCLEX-RN
First-time Candidates, 1980-86

Year	Prince George's Community College Number of Candidates	Number Passed	Percent Passed	All Md. Com. Col. Graduates	Maryland Statewide Pass Rate
1986	106	90	85%	92%	91%
1985	96	83	86	95	92
1984	117	105	90	92	90
1983	103	88	85	90	90
1982	79	62	78	93	92
1981	101	81	80	89	90
1980	104	84	81	87	87

During the 1980's, a total of 706 PGCC graduates took the licensure examination as first-time candidates, with 84 percent passing. During this same period, the statewide pass rate for first-time candidates fell below 90 percent just once, in 1980. PGCC's pass rate was below the average for all candidates from Maryland community colleges all seven years. Nevertheless, the performance of PGCC graduates has improved since the 1970's, when pass rates were below 80 percent on over half the exams given. Since 1983, the college has met the State Board of Examiners of Nurses' 85 percent benchmark.

Graduate Employment

The college's nursing graduates have been relatively successful in finding related employment within a year of graduation. Since 1980, 92 percent of those responding to annual research office surveys have reported employment in nursing positions. Eighty percent of the respondents were working full-time in related jobs. This percentage is higher than the average for all graduates of PGCC occupational programs; in recent years, an average of 62 percent have been employed full-time in positions related to their PGCC program. Employment information from the annual follow-up surveys since 1980 is summarized in the following table:

Employment of PGCC Nursing Graduates
One Year After Graduation, 1980-86

<u>Class</u>	<u>Number of Graduates</u>	<u>Survey Respondents</u>	<u>Employed in Nursing Positions</u>			<u>Percent of Respondents</u>
			<u>Full-Time</u>	<u>Part-Time</u>	<u>Total</u>	
1986	109	57	39	10	49	94%
1985	97	62	51	6	57	92
1984	116	64	45	15	60	94
1983	109	58	51	4	55	95
1982	90	41	35	1	36	88
1981	107	72	59	5	64	89
1980	109	48	37	9	46	96

Employer Evaluations of PGCC Nursing Graduates

Every other year, as part of the graduate follow-up process, the college surveys employers of its graduates. Graduates who respond to the graduate survey are asked their permission for the college to survey their direct supervisors. Since 1980, a total of 79 supervisors have evaluated the skills and attitudes of individual PGCC nursing graduates. Fifty-four, or 68 percent, of

the employers rated the graduates' overall education good or very good. The graduates' technical knowledge was rated similarly, while their work attitude was more highly assessed:

Employer Evaluations of PGCC Nursing Graduates
 Respondents to 1980, 1982, 1984, and 1986
 OIRA Follow-up Surveys

	<u>Very Good</u>	<u>Good</u>	<u>Fair</u>	<u>Poor</u>
Overall rating of graduate's nursing education at PGCC	14	40	19	6
Technical knowledge	19	38	15	7
Work attitude	37	30	9	3

In addition to rating graduates on specific attributes, many employers add comments in response to open-ended questions. In recent years, employers have wished graduates had more clinical experience prior to employment. Physical assessment and time management skills were specifically mentioned as areas needing improvement.

Occupational Demand Forecasts

The demand for health services is expected to grow throughout the 1990s, largely due to the increase in the number of older people who are generally heavy users of health care. Another factor impacting on the demand for health care workers, however, is the effort to contain costs. The results of various cost containment strategies such as health maintenance organizations and outpatient facilities may mean dramatic changes in the delivery of health care. These changes may make current occupational projections less reliable than in more stable periods. Having said that, current forecasts suggest a favorable job outlook for nurses. Federal projections foresee nursing employment growing much faster than average due to an aging population, increasingly complex medical procedures and equipment, and expansion of HMOs, urgent care centers, surgicenters, corporate wellness centers, and nursing homes. Turnover will also provide job opportunities. Nursing is one of the larger occupations in terms of numbers employed; U.S. Labor Department estimates for 1984 identified 1.38 million nurses nationally. Within Maryland, a July 1987 report from the Department of Economic and Employment Development in Baltimore projected statewide employment of nurses to be over 30,700 by

1990. Strong growth, on the order of 30 percent, was anticipated during the 1980s. Openings due to separations were expected to exceed those due to growth, however, resulting in total openings in Maryland averaging over 1,600 annually (Health Occupations in Maryland, p. 25). The D.C. Department of Employment Services, using federal Bureau of Labor Statistics methodologies, projected Washington metropolitan area employment of professional nurses to be 25,430 in 1990, up 38 percent from 1980 totals (Washington Area Jobs and Occupations in the Year 1990, p. 9).

Local Occupational Supply

Twenty-seven institutions offer programs in registered nursing in Maryland: 14 community colleges, 8 four-year colleges, and 5 hospitals. Associate degrees awarded from Maryland community colleges in the Washington metropolitan area have been as follows:

Associate Degrees Awarded in Nursing Local Maryland Community Colleges, FY84-86

	<u>1984</u>	<u>1985</u>	<u>1986</u>
Prince George's	116	97	109
Montgomery	80	68	74
Howard	81	55	72
Anne Arundel	74	71	65
Charles	33	43	39

In addition to these community colleges, several local four-year schools, including Catholic, George Mason, and Georgetown, have nursing programs. American University's Board of Trustees voted in February 1987 to close its 96-year-old school of nursing, citing declining enrollment.

Observations

Nationally, the nursing profession has been in turmoil in recent years. The American Nurses' Association supported a movement to make the baccalaureate a requirement for licensure as a registered nurse, with ADN graduates taking a different test to become certified "technical nurses." The A.N.A. spent \$500,000 in a 1985 campaign to convince state legislatures and licensing boards of the merits of a BSN requirement. In response, community college educators formed the National Organization for Advancement of Associate Degree Nursing. Montgomery College now offers University of Maryland BSN and graduate nursing courses at its Takoma Park and Rockville campuses, promoting its own ADN

program in its "follow the nursing education continuum at Montgomery College" campaign.

Despite hospital nursing shortages, the 1980s have seen severe national enrollment declines in nursing programs. Many women, who in the past might have chosen a nursing career, are selecting alternative programs of study once primarily populated by men. In addition, the increasing visibility and salaries of the teaching profession may have contributed to the decline in nursing students by attracting potential students away. Federal aid for nursing education declined during the late 1970s and early 1980s. Concurrent with the national enrollment decline may have been a decline in the quality of nursing students. A 1985 study by the College Board reported an average combined SAT score of 689 for students intending to pursue a nursing career, 217 points below the national SAT average. The gap had been 177 points in 1977.

The college's nursing faculty support industry efforts to upgrade pay and "cafeteria" benefit plans and arrange more flexible work schedules. To address the PGCC enrollment decline, nursing faculty are active on several fronts. Increased marketing efforts are underway, with nursing faculty participating directly in recruitment activities. The department is exploring the possibility of offering classes at non-traditional times to attract older students, to partially offset expected declines in high school graduates entering the program. Faculty are implementing a federal grant addressing the learning styles and study skills of disadvantaged students, in efforts to improve retention.

The college believes its ADN program is educationally sound and contributes to meeting the demonstrated community need for qualified nurses. Such programs need to be supported professionally, educationally, and financially to ensure that our aging population has the competent, licensed personnel required to meet their health care needs.

Craig A. Clagett

Director
Institutional Research
and Analysis

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PRINCE GEORGE'S COMMUNITY COLLEGE
Office of Institutional Research and Analysis

COMMENTS OF EMPLOYERS OF PGCC NURSING GRADUATES
Employers of Graduates from 1984 and 1986

"Students today need to see the reality of their chosen profession. They need more time on clinical areas, with more than 2 or 3 patients. Those who work as nurses' assistants are usually better organized and able to cope with the stresses placed on them."

"Basic skills are good; more experience utilizing these skills would be helpful."

"More emphasis should be placed on utilizing physical assessment skills consistently and using this information to make sound clinical decisions based on knowledge."

"_____ has progressed very well this past year and is relief charge on days."

"Nurses should be trained on use of computers in hospital settings."

"Assessment skills weak and required much time to develop. Documentation skills were superb. If you don't already have a 2+2 program, please consider one. I rarely hire non-BSN prepared nurses and those new AA grads who can attend a 2+2 program are given preference."

"People skills need development. My poor ratings may reflect personality rather than training."

"Your grads need better skills; rarely have they ever done a nursing procedure (insertion of foley, NG tube). They also have no idea of time management."

"All new graduate nurses need extensive orientation. Most graduates find time management and prioritizing difficult. This is to be expected; however, GNs do not realize this until in the actual role. More emphasis on the transition from student to actual RN."

"Skills vary individually. _____ is a highly motivated, mature lady and has done very well."

"As much clinical experience as can be fit into the program would be helpful post-graduation. I am a PGCC graduate and I feel the nursing program at your college prepares graduates well for the

job world. I owe PGCC a lot!"

"I will not hire another PGCC graduate. They need more clinical experience."

"Employee hired had some experience so she was able to adapt more easily to the work place."

"Employee needed a great deal of practice to achieve acceptable levels."

"More clinical experience needed. _____ had prior hospital experience, so it is hard to judge how much of her knowledge is from education or experience."

"Individual was less prepared than others I have hired. Confidence is lacking."

"More clinical experience would be beneficial in preparation for the real world."

"All need better physical assessment and documentation skills."

"I will not be hiring any more community college graduates. I am trying to get employees with a BS."

"This employee had worked here as an LPN for 16 years. I think that made her transition easier because she already had many of the skills we require."

"The knowledge and quality standards of this nurse have a lot to do with her interest and self-motivation."

"She initially considered her work 'just a job' but as time went on developed a more caring attitude and team effort. PGCC provided a good base knowledge and clinical experience except in the area of actual work load. Students have never had the experience of caring for the actual number of patients required in the job setting which is a great source of frustration and stress. Staffing is not such in most institutions that orientees can be counted as extra persons; very soon they find themselves responsible for 6-10 patients when they have only been experienced in caring for 1 or 2 for a few hours of the day."

"_____ had basic skills necessary for a beginning RN. She also has a willingness to learn new things and is self-motivated to improve her skills. She has accepted her responsibilities well. She has a mature approach to problem-solving. I think some of this is due to _____'s own initiative and her own attitude; this may be something that is not teachable."

"Communications skills could be stronger. It is somewhat hard to

assess whether her skills are from her basic education or year of med/surg nursing experience."

"Organizational and prioritizing skills. Greater number of patients. Greater exposure to higher level of activity."

"More exposure to common procedures--N/G, Foley, enemas. More stress placed on the professional aspects of behavior--ethics, conduct. I do not think this young lady is a good person to judge a program. She is exceptionally motivated and perceptive."

"AA students need a better understanding of priorities. They need to have increased clinical time, to stay for an entire shift--report included. As a grad of a 2-year school, I feel personally they lack true preparation of the nurse. There is a definite need for more supervision in areas, and increased clinical time."

"I would prefer graduates have more hands-on experience prior to employment."

"I attended a two-year school of nursing. After careful evaluation by both college officials, staff, and students, the two-year program was changed to a three-year program awarding an AAS upon completion. This allows for a better understanding of the overall scope of nursing."

"Physical assessment course should be more in-depth. _____ is a remarkable young woman who brought to the nursing profession--before attending PGCC--a dedication to nursing, very high motivation, and a strong desire to achieve."

SOURCE: Office of Institutional Research and Analysis, surveys of employers of PGCC graduates conducted in spring 1985 and 1987.

PRINCE GEORGE'S COMMUNITY COLLEGE

Table 1

Course Enrollments in Nursing

Fall 1982 - Fall 1987

Course	F 82	Spr 83	SmI 83	SmII 83	F 83	Spr 84	SmI 84	SmII 84	F 84	Spr 85	SmI 85	SmII 85	F 85	Spr 86	SmI 86	SmII 86	F 86	Spr 87	SmI 87	SmII 87	F 87
NUR 151	96	96	--	--	89	99	--	--	93	82	--	--	90	53	--	--	72	50	--	--	85
NUR 152	72	87	--	--	84	70	--	--	88	71	--	--	76	78	--	--	59	59	--	--	55
NUR 251	72	66	--	--	72	66	--	--	62	73	--	--	64	69	--	--	55	41	--	--	50
NUR 252	49	69	--	--	60	64	--	--	49	52	--	--	68	51	--	--	65	52	--	--	41
NUR 255	21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
NUR 256	22	65	--	28	27	58	--	22	27	53	--	29	34	44	--	32	33	49	--	18	20
NUR 257	14	29	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
NUR 259	34	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
NUR 265	--	--	31	15	60	41	28	14	37	31	27	16	40	19	31	--	46	31	17	--	39
TOTAL	380	412	31	43	392	398	28	36	356	362	27	45	372	314	31	32	330	282	17	18	290

- NUR 151 Principles and Practices of Nursing I
- NUR 152 Principles and Practices of Nursing II
- NUR 251 Principles and Practices of Nursing III
- NUR 252 Principles and Practices of Nursing IV
- NUR 253 Introduction to Community Health Nursing
- NUR 255 The Nurse as a Leader
- NUR 256 Trends in Nursing
- NUR 257 Critical Care Nursing
- NUR 259 Psychiatric Nursing Techniques
- NUR 261 Concepts of Maternal and Child Health
- NUR 263 Introduction to Operating Room Techniques
- NUR 265 Practicum

PRINCE GEORGE'S COMMUNITY COLLEGE

Table 2

Declared Majors in Nursing
Fall 1977 - Fall 1987

Year	Total	Full-Time	Part-Time
1987	272	87	185
1986	299	75	224
1985	354	94	260
1984	333	85	248
1983	348	106	242
1982	324	124	200
1981	266	126	140
1980	252	87	165
1979	214	60	154
1978	301	89	212
1977	640	169	471

Table 3

A.A. Degrees Awarded in Nursing
FY79-87

Year	Total
1987	110
1986	109
1985	97
1984	116
1983	109
1982	90
1981	107
1980	109
1979	165

PRINCE GEORGE'S COMMUNITY COLLEGE
Office of Institutional Research and Analysis

Table 4
Nursing Student Profiles

	Nursing Majors		Petitioners	
	Fall Number	1987 Percent	Fall Number	1987 Percent
STUDENT HEADCOUNT	272	100%	272	100%
Female	255	94%	254	93%
Male	17	6%	18	7%
Under 21	57	21%	85	31%
21 - 25	84	31%	50	18%
26 - 35	83	31%	92	34%
Over 35	48	18%	45	17%
White	142	52%	76	28%
Black	118	43%	172	63%
Asian	8	3%	16	6%
Hispanic	3	1%	6	2%
Native American	1	0%	2	1%
Continuing from spring	222	82%	121	44%
First-time any college	13	5%	65	24%
Readmitted in fall	22	8%	38	14%
New transfers	5	2%	29	11%
Summer entrants/readmits	10	4%	19	7%
Full-time (12+ hrs)	87	32%	76	28%
Part-time	185	68%	196	72%
Day classes only	200	74%	146	54%
Evening classes only	11	4%	84	31%
Both day and evening	61	22%	42	15%
Freshmen	74	27%	244	90%
Sophomores	198	73%	28	10%
P.G. County resident	256	94%	263	97%
Other Maryland	13	5%	6	2%
Out-of-state	3	1%	3	1%

SOURCE: Information Systems reports STU 460 and STU 276.

PRINCE GEORGE'S COMMUNITY COLLEGE

Table 5

Allied Health Program Indicators, FY80-87

Discipline Cost per FTE Student, FY80-87

	FY80	FY81	FY82	FY83	FY84	FY85	FY86	FY87
Medical Laboratory	4.718	4.266	5.307	6.726	7.740	8.571	15.413	12.594
Medical Isotope	3.984	3.638	3.561	4.636	4.659	6.564	8.493	8.290
Radiography	3.783	3.343	3.965	4.780	4.839	5.707	5.397	6.265
Respiratory Therapy	2.652	2.759	3.146	4.057	4.140	4.674	3.972	5.499
Nursing	4.197	3.887	4.460	3.907	3.731	4.490	4.595	5.110
Medical Records	2.760	3.509	2.965	3.307	3.456	3.984	3.761	4.865
Average all PGCC occupational disciplines	1.965	2.059	2.189	2.366	2.553	2.843	2.976	3.243

FTEs Generated in Allied Health Disciplines, FY80-87

	FY80	FY81	FY82	FY83	FY84	FY85	FY86	FY87
Nursing	128.00	128.67	138.50	163.03	166.40	154.40	149.00	126.50
Respiratory Therapy	26.00	28.17	30.03	22.30	22.30	19.30	13.97	17.33
Radiography	21.00	20.33	18.30	15.73	16.50	14.80	18.20	17.30
Medical Records	13.00	10.00	15.67	14.43	10.77	11.00	17.47	15.90
Medical Isotope	10.00	9.73	12.67	11.17	11.37	7.80	6.67	9.60
Medical Laboratory	16.00	17.10	14.37	11.93	10.13	9.40	5.33	3.30
Total FTEs	214.00	214.00	229.54	238.59	237.47	216.70	210.64	189.93
Percent of PGCC Total	2.48%	2.43%	2.48%	2.48%	2.52%	2.34%	2.35%	2.07%

Associate Degrees Awarded, FY80-87

	FY80	FY81	FY82	FY83	FY84	FY85	FY86	FY87
Nursing	109	107	90	109	116	97	109	110
Radiography	15	12	17	9	8	12	8	15
Medical Records	11	7	8	6	9	5	8	15
Medical Isotope	9	5	9	11	10	6	2	10
Respiratory Therapy	7	13	11	11	10	14	9	10
Medical Laboratory	13	19	10	12	4	10	2	5
Total Awards	164	163	145	158	157	144	138	165

NCLEX - RN
FISCAL YEAR 1986
RANKINGS
BY
MEAN SCALE SCORE

	<u>Number of Candidates</u>	<u>Percent Passed</u>	<u>Number Passed</u>	<u>Mean Scale Score</u>
Frederick Community College	22	100	22	2271.1
Mac Queen Gibbs Willis	15	93	14	2227.7
South Baltimore General Hospital	22	100	22	2214.4
Hagerstown Community College	26	92	24	2188.5
Community College of Baltimore	37	100	37	2178.0
Anne Arundel Community College	69	97	67	2173.7
Montgomery Community College	68	94	64	2165.0
Wor-Wic Tech Community College	27	100	27	2082.5
ALL MARYLAND CANDIDATES	1,459	91	1,332	2044.7
Essex Community College	100	92	92	2030.9
Harford Community College	30	95	76	2030.3
Union Memorial Hospital	50	98	49	2022.9
Catonsville Community College	122	90	110	2021.1
ALL U.S. CANDIDATES	65,224	90	58,702	2015.4
Howard Community College	56	89	50	2011.5
Towson State University	65	92	60	1995.5
St. Joseph's Hospital	55	98	49	1994.6
Allegany Community College	83	92	77	1988.3
University of Maryland	227	88	201	1983.6
Charles County Community College	43	84	36	1963.5
Prince George's Community College	106	85	91	1951.3
Maryland General Hospital	40	98	39	1932.9
Cecil Community College	27	81	22	1912.3
Salisbury State College	69	95	66	1906.4
Columbia Union College	24	91	22	1848.4
Coppin State College	26	58	15	1686.1

These statistics prepared from data supplied by CTB McGraw-Hill, represent all first-time candidates who graduated from Maryland schools and programs of nursing, regardless of where they wrote the licensure examination.

**SUMMARY OF ANNUAL PERFORMANCE - *1ST TIME CANDIDATES
NCLEX-R.N.**

	1986 NO. OF CAND.	PERCENT PASSED	MEAN SCALE SCORE	1985 NO. OF CAND.	PERCENT PASSED	MEAN SCALE SCORE	1984 NO. OF CAND.	PERCENT PASSED	MEAN SCALE SCORE
Columbia Union College	24	91	1858.4	25	92	1862.4	25	84	1925.2
Coppin State College	26	58	1686.1	19	68	1714.3	17	41	1633.9
Salisbury State College	69	95	1906.4	62	95	1961.0	51	80	1812.5
Towson State University	65	92	1995.5	64	92	2001.7	61	97	1971.9
University of Maryland	227	88	1983.6	233	90	1978.1	293	84	1838.7
TOTALS	411	89	1946.3	403	90	1959.6	447	83.4	1850.9
Allegany Comm. Coll.	83	92	1988.3	104	91	2007.8	72	90	1984.8
Anne Arundel Comm. Coll.	69	97	2173.5	70	97	2169.1	74	97	2073.2
Catonsville Comm. Coll.	122	90	2021.1	146	92	2020.9	107	95	2046.9
Cecil Comm. Coll.	27	81	1912.3	27	82	1912.3	22	86	1904.3
Charles County Comm. Coll.	43	84	1963.5	42	83	1965.2	34	88	1917.4
Comm. Coll. of Baltimore	37	100	2178.0	41	95	2041.5	67	94	1984.8
Essex Comm. Coll.	100	92	2030.9	97	93	2029.6	108	92	2013.3
Frederick Comm. Coll.	22	100	2271.1	21	100	2267.6	39	100	2149.2
Hagerstown Jr. Comm. Coll.	26	92	2188.5	26	92	2188.5	26	96	2175.0
Harford Comm. Coll.	80	95	2030.3	76	93	2035.2	87	86	1981.6
Howard Comm. Coll.	56	89	2011.5	55	91	2025.2	81	85	1909.5
Montgomery Comm. Coll.	68	94	2165.0	68	94	2165.0	81	95	2065.0
Prince Georges Comm. Coll.	106	85	1951.3	96	86	1966.8	117	90	1949.5
Wor-Wic Tech. Comm. Coll.	27	100	2082.5	26	100	2090.3	33	97	2015.7
TOTALS	866	92	1961.2	895	95	1934.5	948	91.9	1981.8
Md. Gen. Hosp. Sch. of Nsg.	40	98	1932.9	43	95	2111.2	48	92	1935.4
St. Joseph Hosp. Sch. of Nsg	55	98	1994.6	54	89	1990.5	50	96	1994.6
S. Balto. Gen. Hosp. " " "	22	100	2214.4	22	100	2262.8	24	100	2343.8
Macquzen Gibbs Willis " " "	15	93	2227.7	15	93	2227.7	21	86	1993.6
Union Memorial Sch. of Nsg.	50	98	2022.9	54	98	2024.6	48	98	2038.2
TOTALS	182	95	2034.6	188	95	1990.5	191	95.8	2034.5
MARYLAND	1459	91	2044.7	1486	92	2026.9	1586	90	1981.8
ALL U.S. JURISDICTIONS	65224	90	2015.4	81519	90	2015.7	80457	89	1974.0

SUMMARY OF ANNUAL 1ST TIME CANDIDATES PERFORMANCE

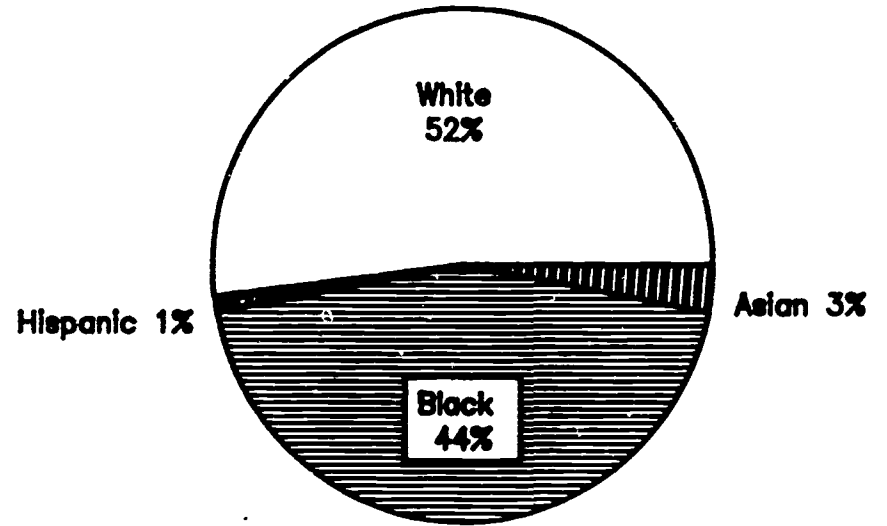
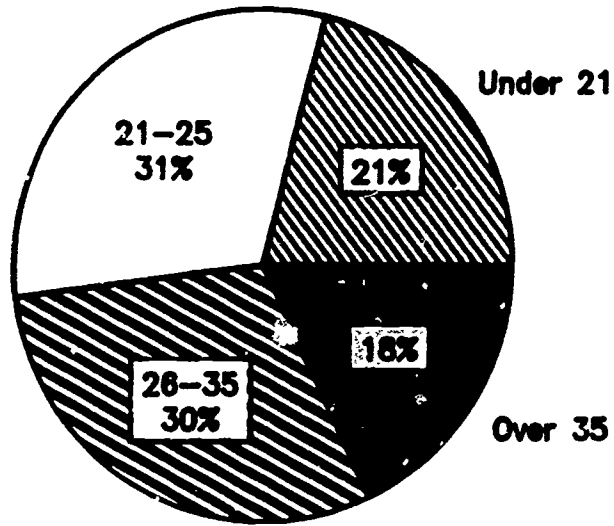
	NO. OF CAND.	1983 PERCENT PASSED	MEAN SCALE SCORE	1982 NO. OF CAND.	NO. PASSED	PERCENT PASSED
Columbia Union College	21	81	1839.5	19	16	84
Coppin State College	37	46	1609.5	22	15	68
Salisbury State College	35	97	2017.4	33	24	74
Towson State University	54	93	2002.4	56	54	96
University of Maryland	278	92	2015.4	269	246	91
TOTALS	424	87.7	1987.2	399	355	89
Allegany Comm. Coll.	78	85	1896.2	50	49	98
Anne Arundel Comm. Coll.	63	94	2007.1	69	57	97
Catonsville Comm. Coll.	111	95	2079.1	97	93	96
Cecil Comm. Coll.	15	80	1826.6			
Charles County Comm. Coll.	38	87	1940.8	26	24	92
Comm. Coll. of Baltimore	28	93	2108.3	42	41	98
Essex Comm. Coll.	111	91	1967.5	82	77	94
Frederick Comm. Coll.	26	96	2238.3	31	31	100
Hagerstown Jr. Comm. Coll.	27	89	2045.8	27	24	89
Harford Comm. Coll.	70	96	2069.6	88	77	88
Howard Comm. Coll.	59	86	1992.5	59	54	92
Montgomery Comm. Coll.	73	97	2157.6	79	77	97.5
Prince Georges Comm. Coll.	103	85	1945.9	79	62	78.5
Wor-Wic Tech. Comm. Coll.	36	92	2008.7	26	26	100
TOTALS	838	90.4	2107.9	755	702	92.9
Md. Gen. Hosp. Sch. of Nsg.	35	86	1944.2	23	21	91
St. Joseph Hosp. Sch. of Nsg.	38	84	1942.4	46	44	96
S. Balto. Gen. Hosp. " " "	22	100	2394.6	52	51	98
Macqueen Gibbs Willis " " "	17	100	2094.8	22	19	86
Union Memorial Sch. of Nsg.	40	95	2030.6	46	45	98
TOTALS	152	91.4	2057.1	154	146	94.8
MARYLAND	1414	90	2002.9	1308	1203	92
ALL U.S. JURISDICTIONS	77433	90	77196			

SUMMARY OF ANNUAL 1ST TIME CANDIDATES PERFORMANCE

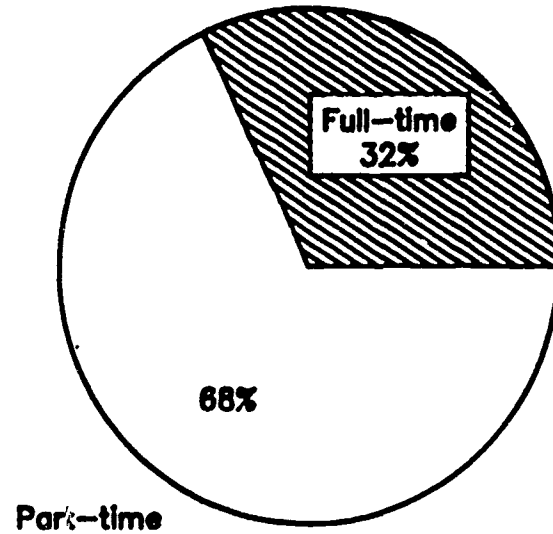
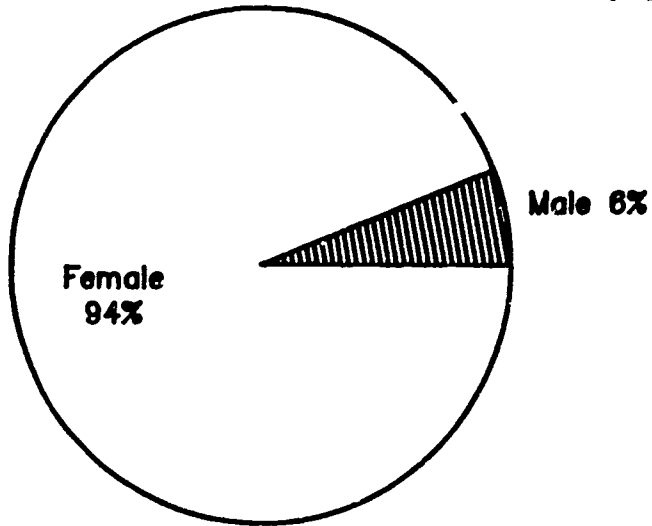
	NO. OF CAND.	1981 NO. PASSED	PERCENT PASSED	NO. OF CAND.	1980 NO. PASSED	PERCENT PASSED
Columbia Union College	13	5	38	22	14	64
Coppln State College	19	11	58	31	16	52
Salisbury State College	25	21	84	28	23	82
Towson State University	48	45	94	51	48	94
University of Maryland	244	227	93	265	231	87
TOTALS	349	309	88.5	397	332	83.6
Allegany Comm. Coll.	51	49	96	46	41	89
Anne Arundel Comm. Coll.	58	55	95	58	52	90
Catonsville Comm. Coll.	91	82	90	93	84	90
Cecil Comm. Coll.						
Charles County Comm. Coll.	32	24	75	23	14	61
Comm. Coll. of Baltimore	38	37	97	39	37	95
Essex Comm. Coll.	87	82	94	91	80	88
Frederick Comm. Coll.	18	18	100	14	14	100
Hagerstown Jr. Comm. Coll.	21	19	90	24	24	100
Harford Comm. Coll.	99	80	81	71	58	82
Howard Comm. Coll.	45	38	84	48	37	77
Montgomery Comm. Coll.	64	61	95	74	72	97
Prince Georges Comm. Coll.	101	81	80	104	84	81
Wor-Wic Tech. Comm. Coll.	26	23	88	18	18	100
TOTALS	731	649	88.7	703	615	87.4
Md. Gen. Hosp. Sch. of Nsg.	26	26	100	37	33	89
St. Joseph Hosp. Sch. of Nsg.	52	51	98	52	48	92
S. Balto. Gen. Hosp. " " "						
Macqueen Gibbs Willis " " "	20	19	95	23	22	96
Union Memorial Sch. of Nsg.	35	35	100	44	41	93
TOTALS	133	131	98.4	156	144	92.3
MARYLAND	1213	1089	89.7	1256	1091	86.8

SUMMARY OF ANNUAL 1ST TIME CANDIDATES PERFORMANCE

	1979		1978			
	NO. OF CAND.	NO. PASSED	PERCENT PASSED	NO. OF CAND.	NO. PASSED	PERCENT PASSED
Columbia Union College	34	18	53	32	20	63
Coppin State College	25	7	28	20	7	35
Salisbury State College	11	10	91			
Towson State University	41	34	83	44	44	100
University of Maryland	259	239	92	352	304	86
TOTALS	383	321	83.8	448	375	83.7
Allegany Comm. Coll.	51	48	94	53	50	94
Anne Arundel Comm. Coll.	58	50	86	74	57	77
Catonsville Comm. Coll.	98	87	89	85	79	93
Cecil Comm. Coll.						
Charles County Comm. Coll.	24	22	92			
Comm. Coll. of Baltimore	65	54	83	57	35	61
Essex Comm. Coll.	84	71	85	101	84	83
Frederick Comm. Coll.	34	33	97	28	38	100
Hagerstown Jr. Comm. Coll.	31	29	94	19	16	84
Harford Comm. Coll.	71	55	77	86	68	79
Howard Comm. Coll.	46	44	96	51	43	84
Montgomery Comm. Coll.	85	84	99	71	70	99
Prince Georges Comm. Coll.	161	125	78	157	116	74
Wor-Wic Tech. Comm. Coll.	18	14	78			
TOTALS	826	720	87.1	782	646	82.6
Md. Gen. Hosp. Sch. of Nsg.	32	29	91	39	35	90
St. Joseph Hosp. Sch. of Nsg.	57	51	89	44	37	84
S. Balto. Gen. Hosp. " " "						
Macqueen Gibbs Willis " " "	20	19	95	20	16	80
Union Memorial Sch. of Nsg.	57	56	98	59	56	95
TOTALS	166	155	93.3	162	144	88.8



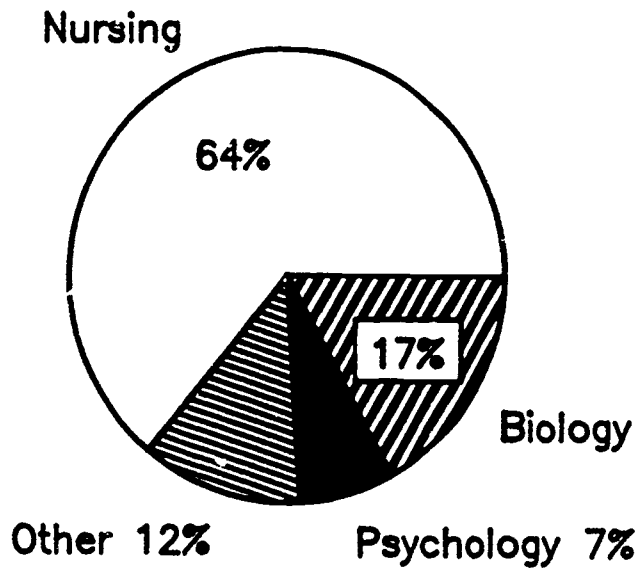
NURSING PROGRAM MAJORS Fall 1987



Total = 272 Students

CREDIT HOUR DISTRIBUTION

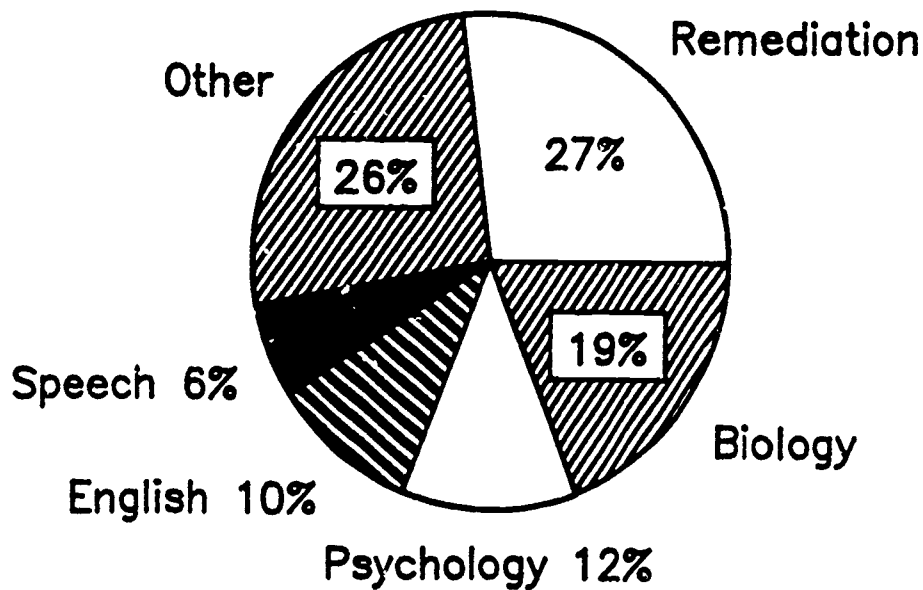
Nursing Majors, Fall 1987



Total credit hours = 2,790

CREDIT HOUR DISTRIBUTION

Petitioners to Nursing Program, Fall 1987



Total Credit Hours = 2,233

**PROGRAM EVALUATION REQUEST
FY 87-88**

COLLEGE: Prince George's Community College

PROGRAM TITLE: Nursing, Registered

PROGRAM HEGIS NUMBER: 5208-01

LEVEL OF AWARD: AA

1. What factors account for the low enrollment in this program?

The following factors are thought to contribute to declining enrollment:

- a. Increased educational opportunities for women as nursing has been a predominantly female career.
- b. Shift in demographics with fewer high school graduates interested in nursing per se.
- c. Decreased quality of educational preparation those interested in nursing resulting in "routing" supplementary educational course, i.e.: developmental studies, etc.
- d. Lack of a specific marketing of program to the "older" non-traditional student.
- e. Absence of offering nursing courses in non-traditional class hours.

2. What is the minimum number of students needed to offer a successful program?

Enrollment of approximately 30 students in each major nursing course (4 courses x 30 = 120 students) would be the minimum number.

3 Describe contacts that you have had with employers about the curriculum and the need for the program. How often has the program advisory committee met during the past year, and what changes or revisions were suggested by the committee? How many members of the program advisory committee are from organizations that employ graduates of the program?

The nursing curriculum is prescribed by the Maryland Board of Nursing and is part of the statewide articulation model, therefore, changes and revisions to the curriculum are limited in scope. Viability of the curriculum with regard to the updating of procedures, etc. can and does occur formally and informally. All full-time clinical instructors maintain positive, cooperative contacts with appropriate agency personnel and these contacts have served as conduits for the curriculum modifications mentioned above.

The nursing advisory committee met the newly appointed Associate Dean of Health Technology in October and a spring

advisory meeting is planned. On the average two advisory meetings an academic year are held. The members of the advisory committee are either the chief executive nursing officer or the nursing recruitment officer of area health care agencies, which have employed graduates of the nursing program.

4. **Make a value judgment about the quality of the program. Is program quality low? Satisfactory? Excellent?**

Program quality can be considered to be excellent based on the following outcome measures:

- a. Percentage of students passing NCLEX on the first try.
- b. Feedback from employers on the quality of work performance by graduates. In addition the program has a well prepared, educationally and experientially, faculty who obtained full 8 year specialized accreditation from the NLN and full 5 year approval from the Maryland Board of Nursing.

5. **What action(s) does the College plan to take to address the above issues?**

- a. The major issue is declining program enrollment. The College has increased its marketing of the nursing program. The nursing faculty are exploring ways to become more involved in actual recruitment and possibly offering nursing courses in non-traditional class times.
- b. Identify and target other types of students to offset the decline in high school graduates.
- c. Participate in the Divisional marketing strategies.
- d. Another issue is the retention of already enrolled nursing majors. The nursing faculty are participating in the implementation of a sizeable federal grant specifically addressing the learning styles and study skills of disadvantaged students.

6. **Nursing programs are suffering from a severe decline in enrollment at the same time that hospitals are reporting a serious nurse shortage. Many explanations have been given for this situation. What is the situation in your part of the State, and what explanation(s) do you offer?**

The greater Washington area is experiencing severe nursing shortages that mirror those of the state. The major factors are that patients in hospitals are older, sicker and discharged earlier than what was characteristic of the population ten years ago. This means the general duty hospital nurse has a heavier work load than what was present in the past. The rate of pay/compensation has not quite kept up with other less strenuous careers. Health care agencies are addressing these

factors by increasing rates of pay, flexible scheduling and "cafeteria" benefits from which nurses may choose those that are of interest to them.

7. What recommendations can you suggest to turn this situation around?

The nursing shortage is being addressed by a variety of national, state and local groups. The nursing faculty support the broad concepts of increased pay, variable benefits and flexible time schedules.

In all nursing courses the intangible benefits of helping others is stressed.

8. A statewide articulation model was recently implemented in Maryland whereby graduates of associate degree nursing programs can transfer directly into baccalaureate nursing programs. What are your impressions on how this transfer agreement is working; what can be done to improve it?

Too little time has passed to adequately evaluate the implementations of the articulation model for our college. The concept is a sound one and we expect as time goes by data will support it more fully.

9. If you were asked to give one piece of advice to your community college colleagues throughout the State on the future development and direction of associate degree nursing what would that advice be?

ADN is an educationally sound program that continues to meet the nursing needs of the community. These programs need to be supported professionally, educationally and financially to see that the people of Maryland have registered licensed personnel caring for them.

10. Governor Schaefer recently appointed a task force to study the nursing shortage in Maryland. What actions would you like to see this task force, the State Board of Community Colleges, or other State-level policymakers take to help community college nursing educators?

- a. Specific recruitment activities should be directed toward the older, non-traditional student who is probably married, has children and is working in a job or career that is not particularly satisfying. The community college nursing educators should be encouraged to explore alternative teaching and clinical assignment times to accommodate this type of student, with accompanying adjustments in required on-campus times (day-time hours versus teaching on Saturdays or in the evenings.)

- b. Develop an "Madison Avenue" type of "return to nursing" advertisement for R.N.'s who are not currently working.
- c. Provide "refresher" courses, for R.N.'s not currently working as nurses, similar to those of the Manpower Act of the late 1960's - early 70's to underwrite those courses, which could be carried out between the community college and local hospitals.

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Junior Colleges OCT 14 1988