

# *The National Commission on Certification of Physician Assistants: History and Role*

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After formal education and training in an accredited program, the final stage in the professional preparation of the physician assistant (PA) is national certification. The process used to certify PAs is distinct, differing from that used by most other health professions, which oversee the process themselves. As a certifying agency, the National Commission on Certification of Physician Assistants (NCCPA) is responsible to the general public and represents no single professionally vested interest. Since its inception, it has remained a freestanding certifying body. Formed by 14 health professional organizations in 1973 and formally organized as a not-for-profit organization in 1974, the NCCPA is dedicated to assuring the public that certified PAs meet established standards of clinical knowledge and skills upon entry into practice and throughout their careers. The development of an independent system of national certification and recertification for PAs is considered a hallmark and an asset of the profession. Almost all U.S. jurisdictions rely on NCCPA certification criteria for licensure or registration of PAs. As of 2004, over 50,000 PAs have been certified by the NCCPA. This paper traces the evolution of the NCCPA, trends in the different examinations, and the national certification process that is unique to the PA profession.

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## **Purpose**

The National Commission on Certification of Physician Assistants (NCCPA) is the public agency that exists to credential physician assistants (PAs) in the United States. Although this institution provides a public service to Americans, its origin and role have not been well documented and reported in literature. We offer this brief summary of the NCCPA and its history of certifying

PAs to stimulate further interest in and study of this unique professional certifying agency.

## **Overview**

Conceived in 1972 and developed in 1973, the NCCPA was formally organized in 1974 and opened offices in Atlanta, Georgia, in early 1975. As of 2004, the NCCPA has certified over 50,000 PAs. The mission of the NCCPA is to assure the public and professional medical organizations that NCCPA-credentialed PAs meet established standards of knowledge and clinical skills upon entry into practice and throughout their careers.

Three examinations are administered by the NCCPA: the Physician Assistant National Certifying Examination (PANCE); the Physician Assistant National Recertifying Examination (PANRE); and the Pathway II Examination. The National Board of Medical Examiners (NBME) develops these examinations under contract to

the NCCPA. Most state medical licensing boards use the PANCE to credential PAs applying for licensure.<sup>1</sup>

Other NCCPA functions include:

- Establishing eligibility requirements for the examinations.
- Establishing passing standards for the examinations.
- Issuing and verifying certificates.
- Establishing and maintaining criteria and standards governing maintenance of certification, including continuing medical education requirements and reporting procedures.

## **History**

The NCCPA grew out of the need for an independent agency to certify entry-level preparedness of PA graduates for clinical practice. Since program accreditation only assures minimum standards of education, an additional mechanism was considered necessary to assure a minimal

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level of clinical knowledge and skills for PAs entering the health care workforce. In 1971, leaders of the PA profession approached the Division of Associated Health Professions of the U.S. Department of Health, Education and Welfare (DAHP/DHEW) and the Kellogg Foundation for funding support to develop a certifying examination. In April 1972, the National Board of Medical Examiners (NBME) accepted the recommendation of its Committee on Goals and Priorities, that the NBME should assume responsibility for developing a national certifying examination for assistants to the primary care physician. An advisory committee was appointed to advise the NBME on policy matters related to the development of the certifying examination.<sup>2</sup>

Parallel with developing a national certifying examination for PAs, key physicians in the American Medical Association's (AMA) Council on Health Manpower led the effort in 1972 to create an independent certifying agency consisting of various health professional organizations. The American Academy of Physician Assistants (AAPA) and the Association of Physician Assistant Programs (APAP) were invited to meet with other participants in late 1973 to organize and seek funding for an independent national commission.<sup>3</sup> In July 1974, the DAHP/DHEW and the Robert Wood Johnson (RWJ) Foundation awarded contracts to the AMA's Education and Research Foundation to "establish a system to evaluate the competency of assistants to primary care physicians." In developing the system, the contractor agreed to create an independent national commission, later designated the National Commission on Certification of Physician Assistants.

Believing that PA certification should not be the domain of any one organization, the AMA and the NBME worked to bring together representatives of a number of medical organizations to form a freestanding, independent commission. According to early minutes of APAP meetings, educators were somewhat apprehensive about the direction that the

commission might take and "opposed the interposition of any group between the NBME and State licensure bodies."<sup>4</sup> Leaders of the AAPA were concerned about how many representatives they would have on the commission. At a general planning meeting held on November 28, 1973, in Chicago, Illinois, Thomas Piemme, MD, representing APAP, and Paul Moson, PA, representing the AAPA, pressed their conviction that a financially independent, freestanding commission would best serve the interests of the profession and public. APAP would have one representative, like the other participating organizations, while the AAPA would have five representatives. The intent of this configuration was to ensure that the bylaws could not be easily changed without adequate PA input. Final details and agreements were reached at a meeting in Chicago on August 9, 1974, and the commission was organized.

The objective was to assure employers, state boards, and patients that a standard related to the competency of PAs was in place and a certifying examination was available for state medical licensing boards. In February 1975, the NCCPA opened national headquarters in Atlanta, Georgia, with a staff of six (Figure 1). The Certifying Examination for Assistants to the Primary Care Physician was first

administered in December 1973 (Figure 2). A number of new health practitioner programs, such as nurse practitioner (NP), PRIMEX, nurse clinician, MEDEX, surgeon's assistant, and child health associate, were gaining momentum, as were PA programs. Eligibility criteria for the initial 1973 certifying examination were developed by the NBME and limited to graduates of "physician's assistant" and MEDEX training programs approved by the AMA Council on Medical Education, and funded by the Bureau of Health Resources Development. In the case of family and pediatric nurse practitioners, they were eligible if they were graduates of programs of at least 4 months' duration and located within nursing or medical schools.<sup>5</sup>

In addition to developing criteria for formally educated PAs, federal and private foundation contracts required the NBME to develop eligibility criteria for those PAs who met a definition of having prior generic experience working in a "physician assistant"-like role but who had not graduated from a formal program. In 1974, the NCCPA reviewed and approved the NBME's eligibility criteria for informally trained PAs and accepted this definition as a continuation of the federal contract, extending it through 1978 as a grandfather clause.<sup>6</sup> In 1987, the NCCPA closed the entry-level certifying examina-

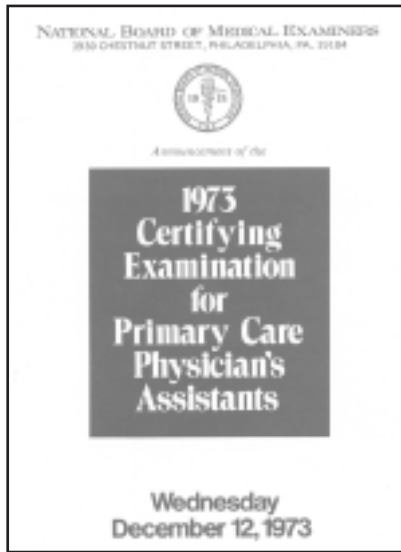
Figure 1  
NCCPA Staff, 1974



Left to right: Ginger Thompson, Connie Gibson, John Winburn, Hank Datelle, David Glazer, Jan Mathias. Photo from NCCPA Newsletter, Vol. 1, No. 1, November 1974. Courtesy of DUMC Archives, PA History Collection.

Figure 2

**National Board of Medical Examiners  
Announcement of First Certifying  
Examination, 1973**



Courtesy of DUMC Archives, PA History Collection.

tion to informally trained PAs because only a few hundred had taken the exam and the failure rate was high. Between 1974 and 1979, 83% of formally trained candidates (ie, PA, Medex, NP) passed the examinations, while only 32% of informally trained candidates passed.<sup>7</sup>

To create the initial examination administered in 1973, the NBME surveyed a large number of PAs and their supervising physicians to determine the scope of tasks performed by PAs in clinical practice. This information was given to various test committees to write questions. Over the first 5 years, the entry-level examination evolved into three components, analyzed and scored separately, then combined and weighted to give an overall composite score. The three components were:

- Multiple Choice Questions (MCQ)
- Patient Management Problems (PMP), separated into “data gathering” and “management and therapy” sections
- Performance Assessment Skills (PAS)

The PAS component represented NBME’s first attempt to measure clinical competency.<sup>8</sup> It evaluated the candidates’ abilities to perform routine physical examinations of the heart, lungs, and abdomen and to do fundoscopic and neurological examinations. In 1978, the PAS evolved into the Clinical Skills Portion (CSP), which presented historical and pathological data to candidates and required them to complete an appropriate physical examination based on the clinical case scenarios. The CSP portion proved to be difficult to administer since it was impossible to achieve standardized testing conditions given the variability of the environments in which it was conducted. In 1997, as NCCPA began converting the PANCE to a computer-based examination, the organization eliminated the CSP portion of the exam.

Three people played pivotal roles in establishing the legitimacy of the NCCPA: the first executive director of the NCCPA, David Glazer (1973 to 1996); Thomas Piemme, MD, the first president of the NCCPA (1974); and Donald Fisher, PhD, the first executive director of the APAP and AAPA joint national office (1973–1980). The 14 charter organizations constituting the NCCPA Board of Directors are listed in Table 1.

The board had three at-large members representing the public and employing physicians. With the exception of the nurses’ association, all the charter organizations continue to participate by sending representatives to the commission. In addition, the NCCPA Board of Directors includes four PA directors at large and appointees from the following organizations:

- The American College of Emergency Medicine
- The American Osteopathic Association
- The U.S. Department of Veterans Affairs

The NCCPA Board of Directors determines the goals and responsibilities of the NCCPA and provides direction for its work. A president who reports to the board directs the staff of the NCCPA. As

Table 1

**NCCPA Board of Directors**

- The American Academy of Family Physicians
- The American Academy of Pediatrics
- The American Academy of Physician Assistants
- The American College of Physicians
- The American College of Surgeons
- The American Hospital Association
- The American Medical Association
- The American Nurses Association
- The American Society of Internal Medicine
- The Association of American Medical Colleges
- The Association of Physician Assistant Programs
- The Federation of State Medical Boards of the U.S.
- The National Board of Medical Examiners
- The U.S. Department of Defense

of 2004 there are 30 full-time employees spread over eight departments.

The main NCCPA responsibilities include creating a content blueprint of the examinations, undertaking practice analysis studies, and overseeing the quality of the examinations for certification and recertification purposes.

**NCCPA Content Blueprint**

The NCCPA Content Blueprint is a primary reference for identifying the clinical problems the PA should be prepared to encounter in a typical primary care practice and is the basis for the construction of the PANCE, PANRE, and Pathway II examinations. This outline of the organ systems and medical specialties was compiled using a variety of sources, including data from the National Ambulatory Medical Care Survey and the National Hospital Discharge Survey (Table 2). It is updated periodically based on practice analysis studies.

**Practice Analysis**

Content specifications for NCCPA exams are developed and validated, in

part, through the use of role delineation studies. The first study was conducted by the NBME in the early 1970s and additional studies were done by the AAPA in 1979 and 1985.

The 1998 NCCPA PA Practice Analysis Project provided the fundamental basis of the content blueprint used in NCCPA certifying and recertifying examinations beginning in 2001.<sup>9</sup> Investigators identified the tasks and essential knowledge and skills that are representative of the actual clinical practice roles, specific tasks and knowledge, and skills and abilities required of PAs. The results of this analysis identified the knowledge and skills rated most highly by practicing PAs as:

- Skills in identifying pertinent physical findings

- Knowledge of signs and symptoms of medical conditions
- Skill in recognizing conditions that constitute medical emergencies
- Skill in performing physical examinations
- Skill in conducting a patient interview
- Knowledge of conditions that constitute medical emergencies
- Skill in associating current complaints with presenting history and identifying pertinent factor(s)
- Knowledge of physical examination directed to a specific condition and knowledge of physical examination techniques
- Skill in effective communication

The NCCPA study found few differences in the tasks performed by PAs

based on the length of time they had worked in the profession, although generally, the longer individuals had been employed as PAs, the more tasks they performed. Response patterns differed across specialties, with a higher rate particularly among PAs in cardiovascular/thoracic surgery, general surgery, and orthopedic surgery. However, and perhaps more importantly, PAs engage in a wide range of tasks essential for clinical practice. Consistently high ratings were observed in the domains considered to be the core functions of PA clinicians—history taking and physical diagnosis—which suggests that there are central cores of medical knowledge, tasks, and skills that are used or performed often and regularly by practicing PAs. This core of knowledge and skills appears to apply to virtually all specialties and settings (Table 3).

PAs appear to place great value on the additional skills required in the practice of clinical medicine—diagnostic acumen coupled with judgment and knowledge in the development of an effective management plan. They engage in a wide variety of specialized practice activities, identified by differences in the specific clinical interventions and procedures performed in various practice settings. While PAs across the country perform procedures in widely diverse practice domains, not all PAs consistently perform the same procedures in all areas of medicine. The authors concluded that PAs rated the knowledge and skills required for clinical procedures

Table 2

**Examination Blueprint: PANCE and PANRE Content by Organ System Disorders and Assessed by Knowledge and Skills**

Percentage of Diseases, Disorders, and Medical Assessment	Exam Content
16	Cardiovascular system
12	Pulmonary system
10	Gastrointestinal/nutritional system
10	Musculoskeletal system
9	Eye, ear, nose, and throat
8	Reproductive system
6	Endocrine system
6	Neurologic system
6	Psychiatric/behavioral system
6	Renal/urinary system
5	Dermatological
3	Hematologic system
3	Infectious disease
100%	
Percentage of Knowledge and Skill Areas	Exam Content
18	Clinical therapeutics
18	Formulating most likely diagnosis
16	History taking and performing physical exams
14	Clinical intervention
14	Using laboratory and diagnostic studies
10	Applying scientific concepts
10	Health maintenance
100%	

Source: NCCPA Examination Content Blueprint 2001. Atlanta, Ga:2001.

Table 3

**Role Delineation: Domains of Knowledge Deemed Most Important by Physician Assistants (rank ordered)**

1. Subjective data gathering
2. Assessment
3. Objective data gathering
4. Formulating and implementing a plan
5. Clinical intervention procedures
6. Health promotion and disease prevention
7. Ancillary professional responsibilities

Source: Cawley, Andrews, Barnhill, et al. JAAPA 2001.



and interventions as very important to being able to practice medicine.<sup>9</sup>

### Examinations

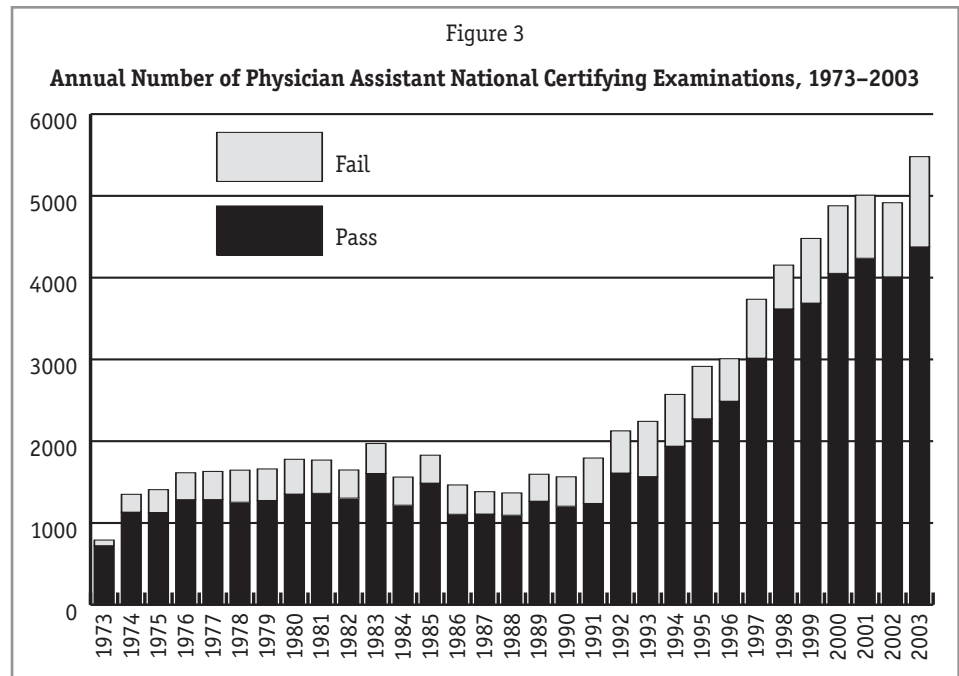
The NCCPA administers four examinations: PANCE, PANRE, Pathway II, and the Surgery Examination. These examinations assess essential knowledge and skills of PAs in performing a variety of health care functions normally encountered in practice. Initial certification through the PANCE is required for PA licensure in almost all states as well as the District of Columbia, Guam, and U.S. jurisdictions such as the military, Department of Veterans Affairs, Bureau of Prisons, and other agencies. The PANCE consists of 300 standardized questions (and 360 questions for the PANRE) developed by the NBME and taken by nearly all PA educational program graduates. In 1999, PANCE examinations were administered in the U.S. via computer at more than 300 contracted testing centers. The computerization of the PANRE followed in 2000.

Several committees generate test questions for the PANCE, PANRE, and Pathway II examinations. Test-writing committee members are appointed by the NCCPA and staffed by the NBME. Committees are composed of physicians and PAs employed in both academic and clinical settings, including the primary care and clinical specialties. Test committees meet regularly to develop the content for each examination, review the previous year's examination performance, finalize the current examination "content blueprint," and make assignments for and prepare new test items.

### Certification

For the PA, the PANCE is the qualifying entrée into U.S. medical practice. A candidate for PANCE must be a graduate of an accredited PA program.

The examination has been in existence since 1973, and as of 2003, over 50,000 people have taken the examination. In most years the number of those taking the PANCE has risen. In 2003 there were 5,480 test takers (first time



and repeat) with an overall pass rate of 80% (see Figure 3). This cadre of test takers represented 130 PA programs. In the same year, there were 1,140 repeaters of the PANCE; 44% of them passed. Historically, since the PANCE was initiated, the pass rate has fluctuated between 69.0 and 94.6 percent.

Since the PANCE was introduced in 1973, there has been a shift in the number of test takers and the pass rate. In 1973 there were 880 PANCE test takers (770 passed, 110 failed; 87.5% pass rate), and in 1983 the number was 1238 (1,605 passed, 367 failed; 79% pass rate). In 2003, the number of certifying examinations administered totaled 5,480, with 4,340 candidates attaining certification. The failure rate was 20.1%; 1104 candidates were unsuccessful.

### Recertification

In an effort to assure the public of career-long clinical knowledge and skills, NCCPA established a certificate maintenance system requiring re-registration every 2 years. This is a process based on the acquisition of a required number of continuing medical education (CME) credits every 2 years, and recertification through the PANRE or Pathway II every 6 years. To maintain

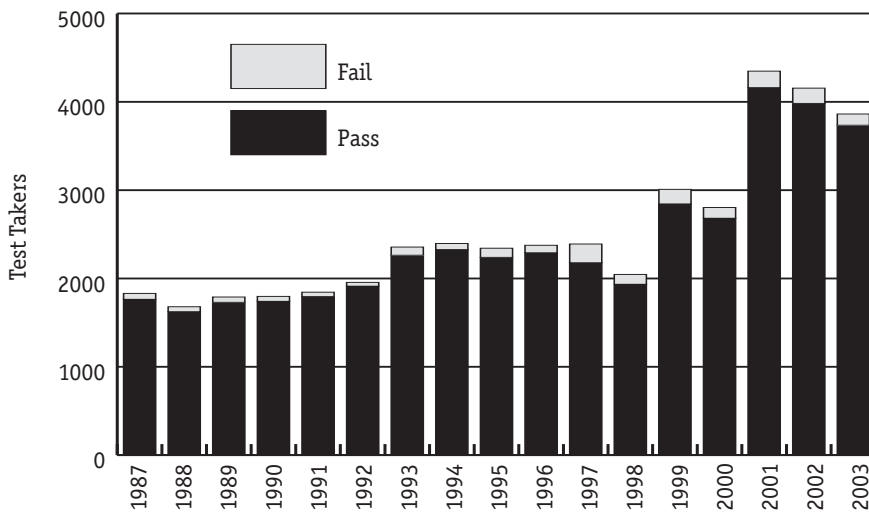
NCCPA certification PAs must complete a process involving documentation of CME, submission of registration materials, and successful completion of the recertification exam.

In 1981, NCCPA began to administer the entry-level PANCE for the purpose of recertification. This was the first recertification examination for PAs and marked a milestone as possibly the first recertification for any health professional. In 1984, the PANRE was developed as a separate recertification examination and has been administered ever since. For many years, the pass rate was relatively high on the PANRE and PAs were recertified on the basis of the examination alone. Those who failed were issued updated certificates and were eligible to retake the exam every 2 years for an indefinite period. Based on an NCCPA policy adopted in 1998, PAs are now required to pass the recertifying examination to maintain certification. Failure to pass the recertifying examination by the end of year 6 now results in loss of certification. To regain certification, PAs must pass PANCE again, or, if CME requirements are met, PANRE or Pathway II.

The PANRE consists of 360 multiple-choice questions arranged into six 60-

Figure 4

Annual Number of Physician Assistant National Recertifying Examinations, 1987–2003



question blocks. In 2003, the PANRE was taken by 3,862 examinees; 96% passed (see Figure 4).

### Pathway II

An alternative mechanism for meeting NCCPA certificate maintenance requirements grew out of an AAPA-NCCPA partnership begun in 1992. The result is Pathway II, a recertifying process administered by NCCPA since it was initiated in 1997. Pathway II consists of a take-home examination plus an elective component. This test-taking option was developed in response to the needs of PAs who specialize in a particular medical field outside of primary care. The elective component is divided into nine categories of education and experiential activities, and PAs are required to earn a certain number of points through those activities to gain eligibility for the take-at-home examination.

In 2003, 1,034 PAs took the Pathway II examination and 915 (88%) passed. Approximately half of the Pathway II test-takers were repeating the test, having failed it the first time (see Figure 5).

### Optional Specialty Examinations

To address problems of specialization, at one time the multiple-choice section of

the PANCE was divided into a required core component and two optional extended core components; one in general medicine and the other in surgery. Candidates had the option of taking one or both of the extended core components. To be certified, candidates had to pass the core and at least one of the optional extended core components. The general medicine component was discontinued in 1997, along with the CSP.

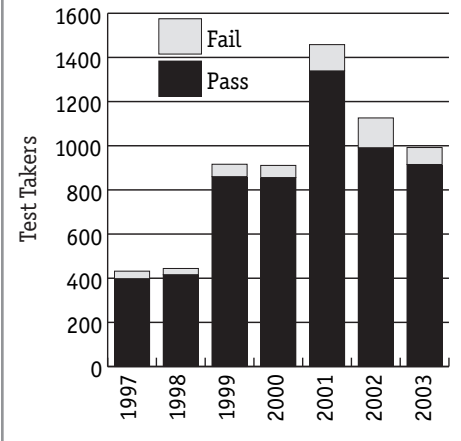
The optional surgical examination was introduced in 1980 for both PANCE and PANRE test takers. This was in recognition of two surgical PA programs and a growing number of PAs selecting surgery as a specialty. It is administered as a stand-alone examination open to both certified and certifying PAs who want to earn “special recognition” in surgery to enhance and broaden their job opportunities. In 2003, 329 PAs elected to take this examination and 77% passed; this represents a declining trend from a peak of 2,378 surgery component test takers in 1996 (Figure 6). This examination was phased out in 2004.

### Continuing Medical Education

NCCPA established a policy in 1980 that every 2 years all certified PAs must earn and submit documentation of at least 100 hours of CME. The concept of

Figure 5

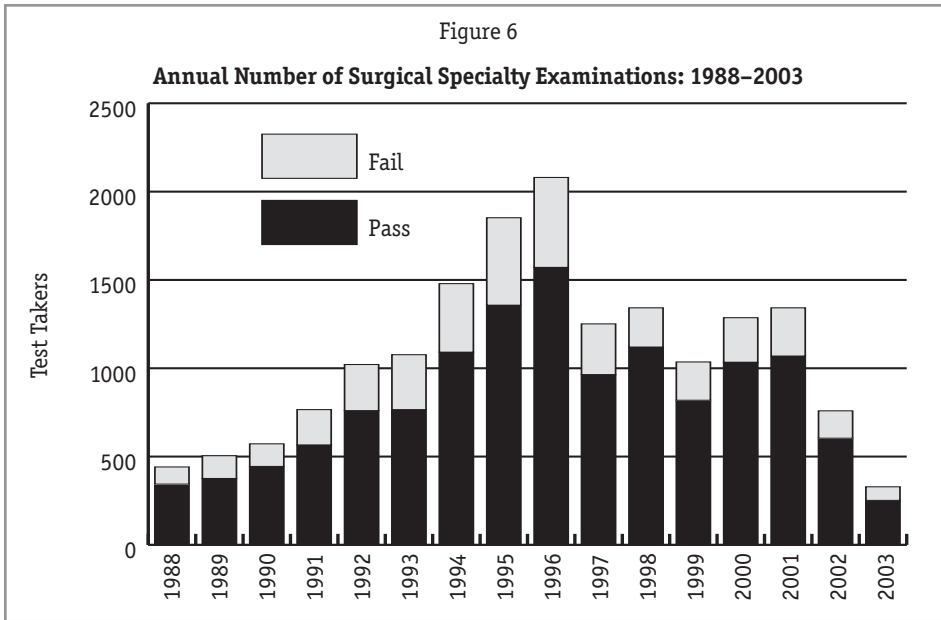
Annual Number of Pathway II Physician Assistant Recertifying Examinations, 1997–2003



certificate maintenance is based on the ongoing acquisition of new medical knowledge obtained through attendance at formal CME sessions and periodic recertification examinations. A noted feature of the PA profession is the recertification process. It was determined in 1975 that every 6 years was an appropriate duration of time to retest individuals on their basic medical knowledge. This unprecedented medical education policy was intended to assure the public that PAs are staying abreast of ever-changing core knowledge needed to practice contemporary medicine.

### Discussion

The NCCPA and, in particular, its method of recertification through examination have been the subject of discussion and debate within the PA profession going back to the late 1980s. These discussions are expressed in statements and resolutions of the AAPA House of Delegates (HOD) and in editorials and letters to the editor of different journals and newsletters. Some PAs, particularly those who worked in specialty practice, question the content relevance of the PANRE, an examination that tests general medical knowledge rather than the knowledge they are maintaining to perform their specialized medical roles. Some consider the NCCPA require-



ments regarding certificate maintenance and periodic recertification frustrating and time-consuming. Defenders of the NCCPA process argue that PAs need to be mindful of the legitimacy derived from the profession’s traditional willingness to submit to recertification by examination system—a trend increasingly adopted by medical specialties and other health professions. The NCCPA’s independence, inclusiveness, and recertification requirements provided the assurance most state legislators needed to enact enabling legislation during the 1970s and 1980s.

**Endpointing**

The NCCPA policy that requires PAs to not only take but also pass the recertification examination to maintain certification has been a topic of debate as well. It was always the clear intent of the commission to require PAs to pass the recertification exam after the exam’s validity had been confirmed. However, pressure from the profession kept that requirement from being implemented for almost two decades. The implications of the certification maintenance policy for PAs practicing in the states that require valid certification as a condition of licensure are significant. The policy of maintaining NCCPA certification is known as “endpointing,” and it defines the final

consequences for those who fail to pass PANRE or Pathway II before the end of their six-year recertification cycle. Under endpointing, PAs who are unable to meet the recertification requirement lose their certification. In order to regain certification status they must take and pass one of the three NCCPA examinations.

Since the endpointing policy was implemented in 2002, approximately 300 PAs have lost certification after attempting but failing to pass the recertification exam.

**Predictability of the PANCE**

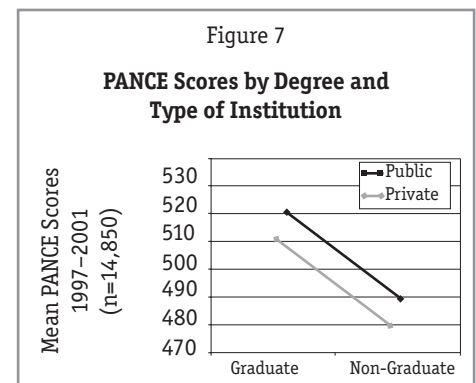
There have also been questions raised about the utility and predictability of the PANCE. Researchers have sought correlations between NCCPA examination results and academic achievement as a means of validating the examination. A study by Cawley<sup>10</sup> suggested that the NCCPA examination may need reevaluation since students without academic degrees and those with associate degrees who pass the NCCPA examination do so at a higher rate than those with baccalaureate and graduate degrees. While the study sample was non-representative, it did suggest that the discrepancy observed could indicate a cultural bias in the NCCPA examination.<sup>9</sup>

Other scholars have examined whether the PANCE is a predictor of

PA student characteristics and behavior. For example, there appears to be little association between the academic degree received in PA education and the likelihood of passing the PANCE. Furthermore, there is almost no correlation between PANCE pass rates and characteristics of PA programs such as public versus private funding, type of university, size of class, and region of the country; or characteristics of students such as age and gender.<sup>11</sup> When 5 years of PANCE scores (n=14,850) were examined by type of degree (undergraduate versus graduate) and type of institution (publicly funded versus privately funded) there was little correlation between these variables and the average pass rate (see Figure 7).<sup>11</sup> Applicants considering PA programs based on the PANCE score record of the program’s graduates may be heartened that the quality of the individual probably makes more difference in passing the PANCE than any program attribute. Because program and student characteristics are not reliable predictors of PANCE performance, PA educators are also questioning whether the recertification process requires similar scrutiny.<sup>10</sup>

**Specialty Testing**

Specialty testing is a broad issue facing the profession, its representative organizations, specialty societies, and the NCCPA. Since specialization appears to be a natural evolution in most health professions, it is no surprise that greater numbers of PAs are working in non-primary care practices. PAs representing specialty and subspecialty groups have



spoken openly of a desire to have some form of recognition in the recertification process. This poses a challenge to the NCCPA at a time when the internal medicine examination was discontinued for lack of interest and the annual number of surgery examination takers is declining. Pathway II offers a possible mechanism for specialist examinations but to adopt this for specialty PAs will require additional staff and a larger, more refined, test bank.

### Conclusion

The architects of the NCCPA envisioned a national independent certifying agency that would be an example of how to introduce a new health professional into the health care environment of the United States and would alleviate the concerns of the public, members of the newly emerging profession, and the medical establishment. The result has been a process that assures the public and others that NCCPA-credentialed PAs meet established standards of clinical knowledge and skills upon entry into practice and throughout their careers. As an independent agency

devoted to protection of the public, the NCCPA has been a leader in the development of innovative approaches in developing the process of credentialing health care professionals. It exists as a model of public watchfulness for other countries as the PA concept spreads beyond U.S. borders.

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