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ABSTRACT

This report identifies issues in state financing of programs to train nurse practitioners and physician assistants and presents findings of a national survey of 51 such training programs. An introductory chapter gives the main arguments for increased use of nonphysician providers of primary health care; this is followed by a chapter on barriers to the development of such training programs, including costly tuition and faculty shortages. The third chapter details the way one state, Virginia, has addressed the issue of training nurse practitioners. Chapter 4 discusses issues for nurse practitioner education, including program expansion and budgetary pressures, and offers a comprehensive definition of the nurse practitioner role. In chapter 5 issues for physician assistant education are examined, including managing program expansion, graduate employment, and program budgetary pressures. A definition of the physician assistant role is included. The sixth chapter briefly describes the national survey in the context of state support for training programs. The survey's results are detailed in the seventh chapter. A concluding chapter notes that state financial support is important to the vast majority of training programs that receive it and that nurse practitioner programs are better supported than physician assistant programs. Appendices include the survey form and a listing of program respondents by state. (DB)

Training Nurse Practitioners and Physician Assistants

How Important Is State Financing?

National Conference of State Legislatures

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How Important Is State Financing?

By

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The National Conference of State Legislatures serves the legislators and staffs of the nation's 50 states, its commonwealths, and territories. NCSL is a bipartisan organization with three objectives:

- To improve the quality and effectiveness of state legislatures,
- To foster interstate communication and cooperation,
- To ensure states a strong cohesive voice in the federal system.

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1. INTRODUCTION

Important to the ongoing debate over the size and shape of America's health care workforce is defining the role of so-called nonphysician providers—nurse practitioners (NPs) and physician assistants (PAs)—in meeting emerging primary care needs in a rapidly changing, cost-conscious health care delivery system. In the past, attention has focused on what role NPs and PAs should play in improving the availability of primary care for the medically underserved and on the barriers that keep them from fulfilling that role. More recently, the spotlight also has been directed at whether NPs and PAs should be delivering a bigger share of the primary and preventive care services demanded in managed care settings.

Many policy officials and industry experts have touted nonphysician providers as a more practical—and cost-effective—solution to the demand for primary care, at least in the short term. Their arguments are based on several factors, including:

- *Steady growth in numbers during the past 20 years*–Today, there is one nonphysician provider for every four primary care physicians. The Pew Health Professions Commission predicts that by the year 2000 the demand for NPs will surpass the supply threefold,[1] while the federal Bureau of Labor Statistics projects growth in PA jobs of 23 percent between 1994 and 2005, compared to a 14 percent growth in total employment for the period.

- *A general consensus that raising the proportion of generalist physicians to 50 percent of the physician workforce and increasing their total numbers in medically underserved areas will not be realized for several years.*[2]

- *A growing realization that NPs and PAs perform a significant proportion of tasks of primary care physicians*--Studies by the now-defunct congressional Office of Technology Assessment and others show that nonphysician providers can perform at least 75 percent of the tasks (up to 95 percent in managed care settings) of generalist physicians.[3] A growing number of state Medicaid programs and managed care plans now use them to provide primary care. In particular, health plans have been encouraged to use NPs in response to increased demand by patients.

- *Research indicating cost-effectiveness*–Compiled by the Pew Commission, several studies have shown that if NPs and PAs were used to their full potential and ability in providing primary care, the resulting savings could be as high as $8 billion.[4] NPs in particular have been shown to perform services at significant savings, especially in organized delivery settings.

Supporters of nurse practitioners and physician assistants have voiced concern that in the longer term, a projected oversupply of physicians—and subsequent underemployment—

could lead to reduced employment opportunities for the two professions. That concern is particularly keen for PAs, whose continued use hinges at least in part on physician support in sharing and delegating medical tasks.

For now, however, part of the attractiveness of nurse practitioners and physician assistants, particularly their potential cost savings, is attributable to estimates that educating them costs significantly less than educating physicians.[5]

2. BARRIERS TO THE DEVELOPMENT OF TRAINING PROGRAMS

The perceived or actual increase in demand for primary care services by nonphysician providers—not to mention lower costs—and (for NPs) a coincident decline in hospital bed days that results in the need for fewer acute care nurses, have contributed to climbing enrollment in both NP and PA training programs. But, despite the trends, the programs continue to face significant barriers, including:

- Costly tuition, limited student scholarships and loans, lack of and greater competition for innovative sources of funds, and a general shortage of program resources.

- In turn, faculty shortages, lack of and competition for clinical training sites, limited training positions and overabundance of applicants, limited geographic and financial access to educational programs (e.g., few students from rural areas or racial and ethnic minorities) and the overall inability to expand program capacity to meet demand.

- A variety of other factors, including the low priority given primary care by many schools and universities, state regulatory constraints on practice, insufficient opportunities for collaborative education and practice with physicians and other health care professionals and cultural or language differences.

In attempting to handle rising enrollment, most existing programs operate with minimum budgets and small part-time faculties. Moreover, the growth in demand has occurred as the federal government's support of the programs (through Titles VII and VIII of the Public Health Service Act) has declined. Only in recent years have the training programs benefited from the actions of states to create or expand scholarship and loan repayment programs to include NPs and PAs.

In addition, certain factors interfere with the successful recruitment of students to training programs, their training experience and the placement of NPs and PAs in medically underserved areas (MUAs). For example, training programs using community-based settings in MUAs are expensive. The costs of decentralization, outreach and dispersal over a wide geographic area for clinical training can be enormous. Students who are most likely to practice in MUAs are least likely to afford the costs of training, particularly when, in addition to tuition or fees, they must leave full-time jobs for a year or more.

As is the case for the medical profession in general, many factors in the academic training setting suppress students' interest in entering primary care practice. A certain number of students have their interests diverted from primary care to subspecialty training, where job

opportunities are less available in many rural underserved communities. According to industry sources, only one-third of NPs trained to deliver primary care to underserved populations actually are doing so. In addition to state scope of practice restrictions, they can earn higher salaries by returning to hospital nursing.

The presence of strong training programs for nonphysician providers also relates to how supportive the state is of the practice of NPs and certified nurse midwives (CNMs). Data from the American College of Nurse Midwives states that in a third of the states that have the most supportive regulatory environments, there are more nurse-midwifery education programs than in the two-thirds with more restrictive environments.

3. Strategies by States to Lower Barriers to Training: An Example

While Congress debates how it might redefine federal financing for nursing education, several states have found new and better ways to support nurse practitioner training. An example follows of how one state—Virginia—has attempted to address the issue.

As in other states, state support for higher education in Virginia has declined while tuition has increased significantly during the past five years. Although there is increasing interest in enrolling in many of the state's NP training programs, the number of available scholarships and loans is limited. Geographic access to Virginia's five nurse practitioner training programs also is limited; only one program is located in the western part of the state. The programs suffer from a shortage of faculty, partly attributable to insufficient program resources. Such barriers persist, even though more than 80 percent of all NP graduates are trained to practice primary care in medically underserved areas.

Recognizing the importance of nonphysician providers in the provision of primary care, lawmakers in 1993 enacted two measures that establish a nurse practitioner/nurse midwife scholarship program to be administered by the Board of Health. Minority students and residents of MUAs are given preference in determining eligibility for available scholarships. As part of the scholarship agreement, the NP or nurse midwife must agree to practice in an underserved area of the state within two years of completing the program. Recipients are required to serve for a period of time equal to the number of annual scholarships received. Specifically, the agreement called upon the Virginia *General Assembly* to:

- Establish a loan repayment program for NPs who agree to practice in a rural or medically underserved area for a certain amount of time; and
- Expand scholarship support for full-tuition costs from five to 25 scholarships for NP students who agree to work in a designated underserved area, plus establish five full-tuition scholarships for CNM students who agree to practice in a MUA.

The agreement also asked *educational institutions* to:

- Develop innovative recruitment programs for minority and other disadvantaged students from underserved areas;
- Increase collaborative, multidisciplinary efforts in schools of nursing and medicine and establish an NP program consortium to develop links among faculty and staff from all NP Training programs;
- Examine priorities and resources devoted to primary care in the state's health professions training programs, plus set a goal or develop a strategic plan to increase the capacity of

existing NP programs by 10 percent annually until current capacity is increased by 50 percent by the year 2000; and
- Establish midwifery services at each academic health sciences center.

Finally, for the *statewide Area Health Education Centers (AHEC) program*, the agreement suggests that it:

- Provide incentive payments to primary care providers that precept NP students;
- Promote use of NPs and develop a consultation service for providers and a public information and education program; and
- Develop a primary care task force to develop interdisciplinary primary care policy and recommend strategies across disciplines and AHEC.

By early 1994, the *Joint Legislative Commission on Health Care* had reviewed the agreement report, received testimony and narrowed the number of recommendations it developed as legislative priorities for the 1994 session. The three recommendations it selected were to:

- Increase the number of scholarships to NP students for full tuition costs,
- Include NPs in a statewide database to be developed to supply limited specialty and practice information for certain health professionals as part of the licensure process, and
- Direct the advisory committee on mandated insurance benefits to examine the possibility of direct reimbursement to NPs for primary care services.

4. Issues for Nurse Practitioner Education

Program Expansion Pressures

As suggested, nurse practitioner education in recent years has witnessed an unprecedented expansion in both the number of enrollees and the number of training programs. According to recent surveys of programs by the National Organization of Nurse Practitioner Faculty (NONPF), the number of training institutions increased by 69 percent between 1992 and 1995, from 119 to 202. During that same period, the number of primary care clinical tracks in the programs rose 96 percent, to 405. Between 1993 and 1995, the total number of enrollees increased from just over 2,800 students in 1993 to nearly 8,000 (7,926) students in 1995. In 1995, 3,105 NPs graduated from the programs, up 130 percent from 1993. Many of the programs are so new that they may not as yet have graduated any students.[6]

There is some discrepancy as to the actual number of NP training programs. While the NONPF study attempts to collect data from programs housed in institutions granting masters degrees in nursing as well as from NP programs that still grant certificate degrees, the American Association of Colleges of Nursing (AACN) determines the number of NP programs by surveying only deans of nursing programs that grant graduate degrees. AACN states that, in the fall of 1995, 255 institutions were offering NP training to nearly 13,000 enrollees.

Importantly, an increasing number of NP students want to focus on subspecialty rather than primary care training. Although the number of primary care tracks in NP programs has risen rapidly, nonprimary care tracks have increased significantly as well. Between 1992 and 1995, according to the NONPF study, specialty training tracks in the programs nearly tripled, increasing their share from 18 percent to 23 percent of the total.[7]

While many observers say that any pressures associated with program expansion should be seen simply as "growing pains" in meeting demand, there is mounting concern among nursing educators that many NP programs have expanded too rapidly beyond their original missions. That expansion, they argue, is putting undue financial and structural pressures on programs. And, they add, there are simply too many new programs that are struggling to survive. Anecdotal reports indicate that many nursing educators fear the trend may be having adverse effects on program organization and quality.

Program Budgetary Pressures

At least for NP programs, the opportunity for expansion in enrollment in recent years coincided with the fact that many schools of nursing were experiencing major budgetary pressures—pressures caused in part by a realization that they must seek and rely more upon external sources of funds, above and beyond student tuition, to cover operating costs.[8] Many NP program officials also suggest it is not feasible to raise student tuition any higher.

The 1995 AACN study of NP training programs found that 51 percent of those surveyed, while still relying on tuition, were receiving external funds. In identifying sources of those funds, about 80 percent (69 programs) of respondents said they receive federal grants.[9] A 1994 study by Lewin-VHI for the federal government found that in federal FY 1992, 65 grantees received nearly $14.7 million in federal grants, an average of about $226,000 per program.[10] The AACN survey also found that about 17 percent of respondents (15 programs) that rely upon external support received grant awards from state agencies. The average amount per program of the grants was reported to be about $213,000. Another 15 percent of respondents said that they receive support from private foundations.[11]

Information about NP programs collected by NONPF found that in 1995 just 16 percent of respondents from public schools and 42 percent of respondents from private schools said tuition fully covered program costs. More than half (54 percent) of respondents said they receive federal funds, and an equal proportion (54 percent) said they also receive state funds.[12] Much smaller proportions of respondents reported receiving faculty practice revenues (17 percent), private foundation funds (16 percent) and health care agency contracts (9 percent)[13].

The Lewin study estimated the average cost of all NP training programs to be in excess of $17,500 per student-year—higher for private programs than for public. Using Lewin's data to estimate that the average NP program has about 16 full-time equivalent enrollees, the average total annual cost of operating a program would thus be $280,000. Nationally, Lewin estimated the total cost of operating all NP programs at about $55.5 million.[14]

Nurse Practitioners

Nurse practitioners (NPs) are registered nurses who have completed advanced training programs, mostly in primary care disciplines. The programs grant either certificates or master's degrees and involve from nine months to two years of full-time study. Functions performed by NPs include health assessments, physical examinations, management of minor acute and chronic illnesses, development and coordination of plans of care, patient education, and health promotion and disease prevention activities. Specific duties vary depending on the practitioners' area of focus. Likewise, practice settings can vary considerably based on specialty choice. Typically, NPs provide primary care in collaboration with a supervising physician, although in many states they can practice independently of physicians but only within a context that provides for consultation, collaborative management and referral. Most states have, however, granted NPs prescriptive authority. Today, approximately 21,000 licensed nurse practitioners are in active practice in all 50 states. Although the licensed scope of practice for NPs varies across the states, their clinical responsibility and autonomy in general has increased. NPs traditionally serve in several private group practices and numerous nonprofit clinics; they are increasingly being used as front-line providers in managed care plans. About 20 percent of NPs practice in rural areas.

The educational background of nurse practitioners also has varied widely over the years. The vast majority of NPs graduating today are completing master's degrees. The most popular specialty training tracks are family practice, followed by pediatrics, geriatrics, adult primary care and women's health. Nurse practitioners are a distinct kind of advanced practice nurse, not to be confused with clinical nurse specialists, certified nurse midwives or certified registered nurse anesthetists.

5. Issues for Physician Assistant Education

Managing Program Expansion and Graduate Employment

As with NP training programs, the number of physician assistant training programs and the number of students matriculating in them have grown rapidly in recent years. In mid-1997, there were 96 accredited PA training programs in 37 states and the District of Columbia,[15] up from just 59 in 1992. The number of applicants has also increased, rising 11 percent alone between the program years of 1994-95 and 1995-96. In 1996, more than 5,500 students were enrolled in PA training programs nationwide, up from 4,400 in 1993.[16]

Furthermore, the percent of unfilled class capacity in PA training programs has dropped precipitously since the 1980s. In 1995-96, 6 percent of class capacity in PA programs went unfilled, compared to more than 21 percent 10 years earlier.[17]

The expansion trends have raised concerns similar to those of NP training programs about program capacity and quality. Several PA educators have called for a formal examination of the trend and whether a moratorium on new training programs should be established.

Although the estimated 2,230 total graduates from PA programs in 1995 was about double that of 1994 (1,200 graduates), the proportion of more recent graduates entering primary care has declined. Between 1993 and 1995, the percentage of graduates going into primary care dropped from 58 percent to 52 percent.[18] That trend can be partly explained by the fact that although the income of all PAs grew rapidly for the same period, the earnings of those choosing primary care fields were below the mean. Also, according to the Bureau of Health Professions, the proportion of PAs choosing to locate in smaller communities (where they are most likely to practice primary care) declined from 34 percent in 1992 to 29 percent in 1996.[19]

Program Budgetary Pressures

As with NP programs, the changing sources and availability of funds for PA training are of growing interest. A nationwide survey of 1995-96 PA training programs found that nearly all (92 percent) depend on internal subsidies from their sponsoring institution for support, while just a third (32 percent) of the programs were able to retain student tuition and fees. (The revenues typically are fully captured by the sponsoring institution.) In 1995-96, funds

from sponsoring institutions on average represented about 55 percent of the total budget for a PA program. Reliance by PA programs on internal support has remained consistent or increased since at least the mid-1980s.[20]

A smaller proportion of PA programs have relied on external sources of funds, primarily grants from the federal and state government. In 1995-96, for example, half (52 percent) of all PA programs received federal grant funds. For those recipients, federal grants represented 23 percent of their total annual budgets, or about $152,000. Both the proportion of programs that receive federal grants and the percentage such grants represent of their total budgets have declined since the mid-1980s. Federal support for PA education, in fact, has not increased since 1994.[21] Furthermore, federal officials reportedly are not optimistic that financial help will increase; rather, they say that support is likely to decline as an increasing number of PA programs compete for external funds. Federal grant funds traditionally have emphasized primary care education, and their declining importance to PA programs may help to explain why fewer PA graduates have chosen to enter primary care.

In terms of state support, the survey reported that 19 of 71 (27 percent) training programs in 1995-96 received grants from state governments. On average, that represented about 21 percent of a PA program's total annual budget. Although the grants averaged about $144,000 per program, the range in the grant amounts to the programs varied widely—from $8,000 to 388,000 per year.[22]

Physician Assistants

Physician assistants work with or under the supervision of physicians, providing diagnostic and therapeutic patient care. Half of the two-year PA education program is devoted to training in the clinical disciplines, most of which is supervised primary care clinical experience. Most PA programs grant either bachelor's or associate degrees. Although NPs perform both nursing and primary medical care tasks, PAs perform medical tasks exclusively.

As with nurse practitioners, the number of physician assistants in the workforce has increased. Currently, about 29,000 physician assistants are in clinical practice (78 percent of the total). PAs are licensed to practice in 49 states; Mississippi is the only state that does not formally recognize PA practice. Like NPs, PA scope of practice varies across the states but has been liberalized to reflect greater autonomy and authority. PAs enjoy prescriptive privileges in most states as well. The two largest fields of practice are family/general medicine and surgery. Nearly three-quarters of physician assistants work in ambulatory settings. Approximately one-third practice in communities with fewer than 50,000 residents.

Much of the growth in the number of PAs can be explained by the environment of training programs. Currently, more than half of the 1,700 annual graduates of PA training programs enter primary care. Students now are exposed to a strong generalist curriculum. Half of all PA programs have developed specific educational curricula to address problems of inner-city and rural populations, and many have built strong linkages with Area Health Education Centers (AHECs), private rural clinics, community health centers and other primary care programs.

6. THE IMPORTANCE OF STATE SUPPORT

To further delineate the issues and understand the importance of state funds to the training institutions, the Primary Care Resource Center at the National Conference of State Legislatures (NCSL) in early 1997 identified and surveyed those nurse practitioner and physician assistant training programs that receive some level of state financial support. All told, 66 NP training programs and 19 PA training programs were found to be in that category. The National Organization of Nurse Practitioner Faculty and the American Association of Colleges of Nursing supplied data about NP training programs that receive state funds. The Association of Physician Assistant Educational Programs and the PA training program at Saint Francis College in Loretto, Pennsylvania, did so for PA programs that receive state funds.

The goal of the NCSL survey was to document the level of state grant support the training programs receive and to better understand the importance of that support to the programs. State financial support is defined as 1) grant funds earmarked by a state for the training program or 2) state general fund (public) appropriations awarded to the program's sponsoring institution, which in turn uses the money to support the training program.

Beginning in February 1997, surveys were mailed to 85 programs identified as receiving state support. Three responded that they do not receive any state funds. Of the 82 that do, the overall response rate was 62 percent (59 percent of NP programs and 74 percent of PA programs). A total of 51 programs located in 27 states representing all geographic regions of the United States returned surveys. Of the 51, 36 were NP training programs, 13 were PA training programs and two were combined NP/PA training programs. (Appendix A contains a copy of the survey instrument; Appendix B houses a listing of the 51 programs that participated in the study.)

7. SURVEY RESULTS

Training Program Characteristics

As table 1 demonstrates, survey respondents included new and old, big and small, rich and poor programs. Although the training programs surveyed varied greatly, those for PAs were generally smaller than those for NPs in terms of the size of their annual budgets and the number of students and full-time equivalent faculty.

Table 1

Range of Training Programs Surveyed*

Ranges for Various Indicators	NP Programs (n=36)	PA Programs (n=13)	Combined Programs (n=2)
Initial Year of Operation	1971-1995	1969-1995	1970-1972
Annual Budget	$63,458-$4.5 million	$250,000-$3 million	$900,000
Number of Students	10-450	14-193	54-125
Faculty FTEs	1-49	3-13	6-25

* Some programs did not give complete information. In those cases, researchers simply computed the ranges based on the information provided.

Specific Findings

1. State financial support is important to the vast majority of NP and PA training programs that receive it.[23]

Roughly 72 percent of NP programs, 23 percent of PA programs and one NP/PA combined program surveyed that now receive support reported that state funds were extremely important and that they would be forced to close if such support was lost (see table 2). Another 22 percent of NP programs, 69 percent of PA programs and the other NP/PA

combined program surveyed said that the money is somewhat important in that it significantly enhances their programs.

Table 2

Importance of State Support as Ranked by NP and PA Administrators

Importance of State Support	NP Programs (n=36)	PA Programs (n=13)	Combined Programs (n=2)
Not Important	2	1	--
Somewhat Important	8	9	1
Extremely Important	26	3	1

2. NP training programs receive more state financial support than do PA training programs expressed as a percentage of annual budget.

On average, state funds represent anywhere from 5 percent to 100 percent of an NP or PA training program's annual budget (see table 3), but the percentage is higher for NP budgets (67 percent) than for PA budgets (36 percent). Of those programs that provided information, for example, 74 percent of NP programs receive 50 percent or more of their budget revenues from the state; in contrast, only about one-third (38 percent) of PA programs received 50 percent or more of their budgets from state support.

Table 3

State Government as a Source of Funds for NP and PA Training Programs*

Percent of Total Budget	NP Programs (n=36)	PA Programs (n=13)	Combined Programs (n=2)
Average	67%	36%	53%
Range	8%-100%	5%-100%	25%-80%

*Some programs did not give complete information. In those cases, researchers simply computed the ranges and averages based on the information provided.

States also gave more financial support to NP programs than to PA programs in terms of actual dollar amounts primarily because NP programs are larger and have larger annual budgets.

The amount of state financial support varied greatly among the training programs, ranging from $30,000 to $2.4 million for NP programs, from $46,600 to $975,724 for PA programs, and $228,000 and $978,735 each for the two NP/PA combined programs.

3. Student tuition accounts for a higher percentage of the revenue of state-funded PA programs than for NP programs supported by state funds.

As shown in Table 4, many NP and PA training programs continue to rely on tuition as a source of revenue. Specifically, 47 percent of NP programs, 62 percent of PA programs and

one of the two combined programs receive tuition funds.[24] Tuition accounts for nearly half (49 percent) of PA program budgets, compared to 25 percent of NP program budgets.

Table 4

Tuition as a Source of Funds for NP and PA Training Programs*

Percent of Total Budget	NP Programs (n=17)	PA Programs (n=8)	Combined Programs (n=1)
Average	25%	49%	26%
Range	6%-50%	5%-90%	26%

*Some programs did not give complete information. In those cases, researchers simply computed the ranges and averages based on the information provided.

Although about half of the NP training programs surveyed receive tuition support, several do not apply those funds to their annual budgets. (While no explanation was provided, anecdotal evidence suggests that the NP program's sponsoring institution captures tuition revenues and, in turn, decides how the funds will be allocated.)

4. Federal government grants are a significant source of financial support for state-funded NP and PA training programs.

As Table 5 shows, support from the federal government is an important source of financial support for many of the training programs. About 44 percent of NP programs, 69 percent of PA programs and both combined programs receive such funds. Two of the NP programs, due to a federal government mandate, do not apply those funds to their budgets but, rather, apply them to nurse trainee programs and student scholarships. Federal support represents a larger percentage of an NP program's budget (37 percent) than a PA program's budget (28 percent).

Table 5

Federal Grants as a Source of Funds for NP and PA Training Programs*

Percent of Total Budget	NP Programs (n=16)	PA Programs (n=9)	Combined Programs (n=2)
Average	37%	28%	22%
Range	1%-80%	5%-60%	18%-26%

*Some programs did not give complete information. In those cases, researchers simply computed the ranges and averages based on the information provided.

5. A significantly greater number of state-funded NP training programs receive grants from foundations than do state-funded PA training programs.

As table 6 demonstrates, just one PA program reported receiving foundation money. In contrast, 11 of the 36 NP programs that responded received foundation grants, representing an average of 9 percent of their annual budgets.

Table 6

Foundation Grants as a Source of Funds for NP and PA Training Programs*

Percent of Total Budget	NP Programs (n=11)	PA Programs (n=1)	Combined Programs (n=0)
Average	9%	Not Provided	
Range	1%-38%	Not Provided	

*Some programs did not give complete information. In those cases, researchers simply computed the ranges and averages based on the information provided.

Other sources of financial support reported by NP and PA programs include:

- Faculty revenues
- Private donations
- Student fees
- Lab fees
- Clinical agency donations
- Counseling service fees
- Area Health Education Centers
- Parent institutions

6. Although most NP and PA program administrators said they are very likely to receive continued state financial support for the next academic year, a small but alarming percentage said they are unlikely to receive continued state support.

Approximately 75 percent (27) of NP programs, 62 percent (8) of PA programs and both combined programs reported that they will very likely continue to receive state funds for the next academic year. About 17 percent (6) of NP programs and 23 percent (3) of PA programs said that they were unlikely or very unlikely to receive state support in the next academic year.

7. Eighteen percent (nine of 51 total) of state-funded NP and PA programs said the loss of that money will likely force their closure or at least significantly affect their ability to function.

Of the nine programs that are unlikely or very unlikely to receive continued state support, two NP administrators predicted that their programs would be forced to close. Another three NP and four PA administrators said that their programs would be seriously affected.

8. State legislatures and health departments are the direct sources for the majority of state funds for NP and PA training programs.

About 67 percent of NP programs and 62 percent of PA programs receive state money directly from their legislatures, while 25 percent of NP programs and 54 percent of PA

programs receive funds directly from the state health department (see table 7). Agencies identified within the state health departments that give financial support to the training programs include:

- Health Manpower Commission
- AHEC
- Maternal/Child State Grant
- Bureau of Primary Care
- Community Health Nursing Division
- Office of Family Planning
- Bureau of Health Research and Development
- Office of Statewide Planning and Development
- Health Personnel Rate Appeals Program
- State Office of Rural Health

Both combined programs received their state funds from the California Office of Statewide Planning.

Table 7

Direct Sources of State Funds for NP and PA Training Programs*

Sources of State Funds	NP Programs (n=36)	PA Programs (n=13)	Combined Programs (n=2)
Legislature	24	8	--
Health Department	9	7	2
Higher Education Commission	2	2	--
Other	4	2	--

* Some NP and PA programs marked multiple sources for their state support because they receive the funds from more than one source.

9. Most state-funded NP and PA programs receive continued state support, although the level of support has changed over the years.

The majority of NP, PA and combined programs have received state funds since the program's inception (see table 8). Only 25 percent of NP programs and 31 percent of PA programs have received state funds for five years or less. One NP administrator was unable to determine the length of time the state has supported the program

Table 8

Duration of State Support for NP and PA Training Programs

Duration of State Support	NP Programs (n=36)	PA Programs (n=13)	Combined Programs (n=2)
Since Program Began	22	5	--
5 Years or Less	9	4	--
More Than 5 Years	3	4	2
Unable to Determine	2	--	--

State support for 78 percent of NP programs, 92 percent of PA programs and both combined programs has varied since the programs first received funds (see table 9). Of the 28 NP programs that have received varying amounts of state support, the dollar amount has increased for 14 and decreased for six. Levels either varied or were not available for the remaining eight. Of the 12 PA programs that have received varying amounts of state support, the amount has increased for four and decreased for five. For the other three, levels either varied or were not available.

Many of the increases in state support for NP and PA programs were made to accommodate salary increases. Variances in the number of enrolled students from year to year also caused fluctuations in state support. As for the two combined programs, one received increased funds to expand and develop a new satellite, while the other received relatively stable university funds and fluctuating state grants.

Table 9

Variances in Amount of State Support for NP and PA Training Programs

Variance in Amount of State Support	NP Programs (n=36)	PA Programs (n=13)	Combined Programs (n=2)
State Funding Varies	28	12	2
State Funding Remains the Same	8	1	--

10. The sources of direct state support for PA training programs are more likely to change than for NP training programs.

Approximately 83 percent of NP programs have received funds from the same state source while 69 percent of PA programs have not (see table 10). Of the two combined programs, one has received funds from the same source, and the other has received core support from the Office of Statewide Planning and Development, while other special projects and expansion funds have varied.

Table 10 Change in Source of State Support for NP and PA Programs			
Changes in Source of State Support	**NP Programs (n=36)**	**PA Programs (n=13)**	**Combined Programs (n=2)**
Source of Support Changed	6	4	1
Source of Support Remained the Same	30	8	1
Not Available	--	1	--

11. Proportionately more PA training programs are subject to restrictions on state financing than are NP training programs.

Roughly 46 percent of the PA programs, 36 percent of the NP programs and both the combined programs were subject to restrictions on their state funds (see table 11). Allocated state funds are restricted to one or more of the following program areas:

- Curriculum
- Faculty and staff salaries
- Operations
- Clinical site and preceptorship development
- Satellite development
- Student support and tuition
- Travel and equipment

Table 11 Restrictions on State Funds for NP and PA Training Programs			
Restrictions on State Funds	**NP Programs (n=36)**	**PA Programs (n=13)**	**Combined Programs (n=2)**
State Restrictions	13	6	2
No State Restrictions	23	7	--

12. Most NP and PA programs have full or partial control over the state funds they receive and are satisfied with their current level of control in administering these funds.

About 44 percent of NP programs, 62 percent PA programs and both combined programs have full control over the state funds that they receive, while about 42 percent of NP programs and 38 percent of NP programs have partial control (see table 12). Program officials share administrative responsibility either with other university officials or with the state agency representatives that issue the grants. Only 14 percent of the NP programs reported having no control over state funds.

Table 12
NP and PA Programs' Level of Control over State Funds

Level of Control Over State Funds	NP Programs (n=36)	PA Programs (n=13)	Combined Programs (n=2)
Full Control	16	8	2
Partial Control	15	5	--
No Control	5	--	--

In general, the program administrators who received state funds were overwhelmingly content with their level of control. Approximately 83 percent of NP officials, 92 percent of PA officials and both the NP/PA combined programs expressed satisfaction with the administration of state funds. None of the program administrators that had no control over state funds reported being unsatisfied with their level of control. Two programs (one NP, one PA) that each had full control were unsatisfied because of frustration with the current level of support or its instability, not because of their amount of administrative control. Three NP programs with partial control of state funds were unhappy with their lack of control, the layers of bureaucracy and the distribution of the state funds.

13. Were they to be given additional state funds, most program administrators say they would apply it to faculty salaries.

The majority of NP and PA programs would use additional state funds for faculty salaries. Second on their list would be student loans or scholarships. After faculty salaries and student support, the administrators said they would use additional money to fund clinical preceptor sites and distance-learning technology. Programs also would spend additional state funds for:

- Technology to support clinical learning
- More student enrollment slots
- Equipment and supplies
- Administrative staff salaries
- Minority recruitment and retention programs
- Practice sites for clinical teaching
- Standardized patients for teaching and evaluation
- Faculty development

8. CONCLUSION

For those nurse practitioner and physician assistant training programs that receive state funds, the financial support appears to be of significant importance. That is especially true for state-funded NP training programs for which state support represents an average of two-thirds of annual budget revenues. Nearly three-quarters of the programs said state support is extremely important to their survival. In general, NP programs say they now rely more on funds from external sources such as state and federal government grants or appropriations.

For PA training programs that receive state support, the funds represent an average of one-third of their annual budget revenues. The programs report that they still rely more on financial support internal to their program or sponsoring institution. Student tuition averages about half their annual budget revenues.

Although most of the NP and PA programs expect to receive continued state support, about 20 percent say they are unlikely to receive further state funds and will likely be forced to close or to significantly curtail their program because of that loss. Nearly all the programs report that state support has never been consistent, with dollar amounts varying over time.

An increasing number of NP and PA programs have come to rely upon external sources of funds. With the decline in available federal grants expected to continue, as well as the need for many sponsoring institutions themselves to compete for often-shrinking or more-competitive external sources of funds, more programs are at risk. It is possible—and perhaps appropriate—that many will close or dramatically curtail training initiatives. It will be incumbent upon state lawmakers to reexamine the public importance and value of NP and PA programs that receive state funds to determine whether they deserve continued support.

APPENDIX A

THE SURVEY

PLEASE RESPOND TO **ALL** THE BELOW QUESTIONS. THANK YOU.
RETURN THE SURVEY **VIA MAIL OR FAX** TO:

Tim Henderson
National Conference of State Legislatures
444 North Capitol Street, N.W. Suite 515
Washington, D.C. 20001

Phone: (202) 624-3573
Fax: (202) 737-1069

Identify **Training Program Name, Address, Phone Number, Fax Number and Contact:**

_____
_____
_____

Year Program Became Operational: _____ **Annual Program Budget:** $_____

Total # Students Enrolled in FY 1995-96: _____ **Total Program Faculty (FTEs):** _____

1. Identify the **sources of funding** the training program received in FY 1995/96:

Program Funding Sources	Received in 1995/96 (**Yes or No**)	Percent of Total Budget (ESTIMATES ARE OK)
State Funds (Public)	_____	_____ %
Tuition	_____	_____ %
Federal Government	_____	_____ %
Private Foundation	_____	_____ %
Faculty Practice Revenues	_____	_____ %
Other (Please specify) _____	_____	_____ %

2. Specify the training program's **state (public) funding** for the 1995/1996 academic year:

$ _____

3. Identify the **particular agency/ institution** from which the training program or school receives **state funding**: (CHECK ALL THAT ARE APPLICABLE)

__ Direct support from Legislature (i.e., line-item appropriation or general fund revenue)

__ Grant from State Health Department
(Specify division or program: _____)

__ Grant or subsidy from State Higher Education Commission

__ Other (Specify: _____)

4. Did a **state legislator(s)** provide leadership in your training program's creation and development?

___ Yes ___ No

If **Yes**, what were the circumstances that led to the legislator's support?

_____

_____

If **No,** what other institutions and funders were important to founding the training program?

_____

5. How **long** has the training program received some form of state funding?

___ Since the training program begun
___ 5 Years or Less
___ Over 5 Years

6. Has the **amount** of state support varied since the inception of your training program?

___ Yes ___ No

If **Yes**, describe changes: _____

7. Has the **source** (i.e., particular state agency or institution) from which the program receives state support changed over time?

___ Yes ___ No

If **Yes**, describe changes: _____

8. Is state support restricted to or earmarked for covering certain program expenditures or functions?

___ Yes ___ No

If **Yes**, what program function(s) or cost(s) are supported by state funds?

_____
_____
_____

9. What level of involvement does the training program have in the **administration** of state funds?

___ Training program has **full control** over budgeting and spending state funds.
___ Training program has **partial control** over budgeting and spending state funds.
___ Training program has **no control** over budgeting and spending state funds.

10. If the training program has **partial or no control** over the administration of state funds, identify the other parties involved with managing the state funds and their nature of involvement:

_____
_____
_____

11. Is the training program satisfied with its current level of control in administering state funds?

___ Yes ___ No

Explain: _____
_____
_____

12. If the program were able to receive **substantially more state funding**, for what purpose(s) would you like it to be used? PLEASE RANK ORDER

___ Faculty salaries
___ Student scholarships or loans
___ Support clinic

14. What is the probability the program will continue to receive state funding **in the next academic year (1997-1998)?**

___ Very Likely
___ Somewhat Likely
___ 50%
___ Unlikely
___ Very Unlikely

15. Do you have any further comments?

_____
_____
_____

THANK YOU.

APPENDIX B

A LISTING OF NP, PA AND NP/PA PROGRAM RESPONDENTS BY STATE

State	NP Programs	PA Programs	Combined Program
AL	Univ. of South Alabama, College of Nursing (3)*		
AK	University of Alaska, School of Nursing		
CA	Family NP and NM Programs, University of California at San Diego California State University at Fresno, Dept. of Nursing Women's Health Care Nurse Practitioner, Education Programs Associates	Charles R. Drew University PA Program Western Univ. of Health Sciences Primary Care PA Program Primary Care PA Training Program, Univ. of Southern California School of Medicine	FNP/PA Program, Dept. of Family and Community Medicine, University of California Stanford Primary Care Associate Program
CO		Child Health Associate/PA Program, Univ. of Colorado Health Sciences Center	
FL	Florida State Univ. at Tallahassee Univ. of Florida at Gainesville, College of Nursing, NM Program Univ. of Miami, School of Nursing, NM/NP MSN Program (2)*		
GA		PA Dept., Medical College of Georgia	
HI	Univ. of Hawaii, Primary Care NP Program		
IL	Univ. of Illinois at Chicago, Dept. of Public Health, Mental Health and Administrative Nursing, FNP Option	Midwestern Univ. PA Program	
IN	Indiana University, School of Nursing, MSN Program		
IA	University of Iowa College of Nursing Advanced Practice Nursing Options (2)*		
KS	University of Kansas School of Nursing		

State	NP Programs	PA Programs	Combined Program
MN	The College of St. Scholastica, Graduate Program in Nursing, Family NP Track Winona State University, College of Nursing and Health Sciences		
MS	Univ. of Southern Mississippi, School of Nursing Univ. of Mississippi Medical Center, School of Nursing		
MO	Univ. of Missouri at St. Louis, Barnes College of Nursing		
NV	University of Nevada, Dept. of Nursing		
NM	Univ. of New Mexico, College of Nursing		
NY		Albany-Hudson Valley PA Program Bronx Lebanon Hospital Center Dept. of PA Education, SUNY	
NC	University of North Carolina at Chapel Hill, School of Nursing, MSN Practitioner Programs (2)*		
OR		Ore. Health Sciences University PA Program	
PA	College Misericordia, Family NP Program Temple University, Dept. of Nursing	St. Francis College	
SC		PA Program, Medical University of South Carolina	
SD	South Dakota State University, College of Nursing, Graduate Nursing Program		
TX	University of Texas at Houston, School of Nursing University of Texas at Arlington, School of Nursing University of Texas at Austin, School of Nursing		
VA	Old Dominion University, Family NP Program		
WA	University of Washington, NP Training Programs	MEDEX Northwest, PA Program	
WV	Marshall University School of Nursing		
WI	Univ. of Wisconsin at Oshkosh, College of Nursing		
Total	**36**	**13**	**2**

* These Master of Science in Nursing programs have more than one NP program such as for primary care, general, adult, pediatric, OB/GYN and/or family NPs. These administrators reported separate budgets for different NP tracks. Administrators with no asterisk after the program name either did not inform us or reported one budget for the different tracks, so researchers recorded them as one program. For example, Indiana University, which has one MSN program that offers four NP majors, completed one survey for the MSN program. Therefore, researchers recorded Indiana University as one program. However, had the administrator from Indiana University completed four different surveys—one for each degree—because each degree is funded differently, researchers would have counted Indiana University as having four different programs.

NOTES

1. Pew Health Professions Commission. Nurse Practitioners: *Doubling the Graduates by the Year 2000.* San Francisco, Calif.: University of California at San Francisco, Center for the Health Professions. April 1994.

2. D.A. Kindig et al. "The Elusive Generalist Physician: Can We Reach a 50% Goal?" *Journal of the American Medical Association.* September 1, 1993; 270(9): 1069-1073.

3. Office of Technology Assessment, United States Congress. Health Technology Case Study 37: *Nurse Practitioner, Physician Assistants and Certified Nurse Midwives: A Policy Analysis.* Washington, D.C.; U.S. Government Printing Office, 1986.
C. Hanson. *Access to Rural Health Care: Barriers to Practice for Non-Physician Providers,* report prepared for the U.S. Department of Health and Human Services, November 1992.
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4. L.M. Nicholas. "Estimating the Cost of Underusing Advanced Practice Nurses," *Nursing Economics* 10, no. 5, September/October 1992, 343-351.
J.C. Record. *Provider Requirements, Cost Savings and the New Health Practitioner in Primary Care: National Estimate for 1990* (No. 321-77-0077 WDC: DHEW), 1979.
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5. B.J. Safriet. "Health Care Dollars and Regulatory Sense: The Role of Advanced Practice Nursing." *Yale Journal on Regulation* 9, no. 2, Yale Law School. Summer 1992. 417-487.
D. Robyn and J. Hadely. "National Health Insurance and the New Health Occupations: Nurse Practitioners and Physician Assistants," *Journal of Health Politics,* Policy and Law 5, no. 3, 1980. 465.

6. National Organization of Nurse Practitioner Faculties. *Workforce Policy Project Technical Report: Nurse Practitioner Educational Programs,* 1988-1995. NONPF, 1996.

7. Ibid.

8. Ibid.

9. American Association of Colleges of Nursing. *1994-1995 Special Report on Master's and Post Master's Nurse Practitioner Programs, Faculty Clinical Practice, Faculty Age Profiles, Undergraduate Curriculum Expansion in Baccalaureate and Graduate Programs in Nursing*, AACN: Washington, D.C., 1995.

10. Lewin-VHI Inc. *Federal Support for the Training of Nurse Practitioners and Nurse Midwives*, for the Bureau of Health Professions, Health Resources and Services Administration, Contract #240-93-0043, September 30, 1994.

11. Ibid., AACN, 1995.

12. The discrepancy between the AACN and NONPF surveys on the proportion of NP training programs identified as receiving state funds exists in part because AACN presumably did not include training programs that receive state general fund (public) appropriations indirectly through their sponsoring institution but, rather, included only those programs that receive direct grant funds from the state.

13. Ibid., NONPF, 1996.

14. Ibid., Lewin-VHI, 1994.

15. Personal Communication, James Cawley, The George Washington University, October 1997.

16. Association of Physician Assistant Programs. *Twelfth Annual Report on Physician Assistant Educational Programs in the United States, 1995-1996*, Saint Francis College and APAP: Alexandria, Va., May 1996.

17. Ibid.

18. Ibid.

19. Bureau of Health Professions. *Health Workforce Newslink* 3, no. 2 Health Resources and Services Administration, Summer 1997.

20. Ibid., APAP, 1996.

21. Ibid.

22. Ibid.

23. Based on data provided, many training programs may have underreported the amount and proportion of state funds they receive. Several programs are thought to have reported only those state grant funds earmarked directly. Often not identified as state funds are those

state appropriations directed to the sponsoring institution and then channeled to the training program.

24. This does not mean that the other training programs do not charge tuition; rather, the authors believe that tuition revenues for these programs do not go directly to the training program.

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