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APPENDIX:

Eighteenth Annual A.P.A.P. National Survey For The 2001-2002 Academic Year

EIGHTEENTH ANNUAL REPORT ON PHYSICIAN ASSISTANT EDUCATIONAL PROGRAMS
IN THE UNITED STATES, 2001-2002

INTRODUCTION

Founded in 1972, the Association of Physician Assistant Programs (APAP) serves as the national organization representing physician assistant (P.A.) educational programs in the United States. The Association serves as a conduit for communication among P.A. educators by sponsoring meetings, organizing research studies and providing a forum to conduct the business of the membership. Another important role for the Association is to serve as a resource for individuals and organizations interested in the aspects of the physician assistant profession that pertain to the selection and education of the P.A. students and the characteristics of physician assistant programs. In addition, APAP provides representation to various bodies that help to chart the course of the P.A. profession, including the Commission on Accreditation of Allied Health Education Programs (CAAHEP) and the National Commission on Certification of Physician Assistants (NCCPA), among others.

As the primary organ for collection and dissemination of data about its member physician assistant educational programs, the Association publishes the "Physician Assistant Programs Directory."¹ The Directory provides a listing and description of APAP member programs. Each listing provides comprehensive information concerning each program's admission requirements, curriculum, institutional affiliates, credentials awarded and other descriptive data. The Directory also provides a summary of postgraduate educational programs for P.A.'s, information about accreditation and P.A. certification. As of October, 2001, there were 130 physician assistant programs accredited (full or provisional) by the Commission on Accreditation of Allied Health Educational Programs in the United States.²

In 1984, the process of establishing a national database on P.A. programs was initiated by Denis Oliver, Ph.D., Director of The University of Iowa Physician Assistant Program and then Past-President of the Association. The first national survey was developed and administered in the fall of 1984. The questionnaire requested information on a variety of program "activities" including institutional sponsorship, financial support, program personnel (faculty and support staff), characteristics of applicants and students enrolled, curriculum, student attrition and graduate employment characteristics. The findings from the 1984 survey were published as the First Annual Report on Physician Assistant Educational Programs in the United States, 1984-85 and, to date, a total of seventeen Annual Reports³⁻¹⁹ have been published, including the present Report.

Dr. Oliver retired as author after publication of the eleventh Report. In 1995, the APAP Board of Directors authorized individuals from the Saint Francis University Department of Physician Assistant Sciences to author future Reports. Data from the annual report has been published in numerous other venues where discussions of the P.A. profession are ongoing. Examples of these publications include the Journal of Medical Education, AAPA News and the Journal of the American Academy of Physician Assistants. Selected data have been published in the Annual Reports to the President and Congress on the States of Health Personnel in the United States and in a publication of the Association of Academic Health Centers.

The data presented in the Report over the years represents responses from greater than 90% of the P.A. programs surveyed. This high rate of response leads the authors to present the findings contained herein to be representative of the physician assistant educational programs in the United States. Given that the basic elements of the annual survey have remained consistent over its seventeen year history, a significant amount of data has been generated that can be used to depict the "typical" or "average" P.A. educational endeavor. The consistency in collection of data has also provided the ability to detect trends or document changes as they occur over time. Identified trends have been analyzed to generate reports on the following items:

- * Characteristics of AMA-accredited P.A. Programs that have Closed.⁵
- * Characteristics of Graduate-Level P.A. Programs.^{6,9}
- * Analysis of Alien and U.S. Unlicensed Medical Graduates Admitted to P.A. Programs.⁸
- * Analysis of P.A. Program Personnel Turnover.¹⁰⁻¹⁹
- * A Review of Program Characteristics by Sponsoring Institution.³

METHODS

The Survey Instruments

Two questionnaires (surveys #1, #2) were administered. The first survey was a total of seven pages in length, mailed in October 2001, to 130 programs that were identified as accredited from databases maintained by APAP and the American Academy of Physician Assistants (AAPA). Survey #1 consisted of three major sections (see the Appendix for a copy of the questionnaires):

- A. General Program Information: Includes date of admission of first class, length of program, consortia membership, sponsoring institution, sources of financial support, student expenses and financial aid and credentials earned.
- B. Program Personnel: Includes characteristics of program faculty and staff, clinical activity of P.A. personnel, and an assessment of program personnel turnover, attrition and recruitment.
- C. Applicant/Student Information: Includes the number, gender, age, ethnicity, residency, academic and health care experience background of applicants and students enrolled, including the disabled. A section requesting information of unlicensed medical graduate (UMG) applicants and students enrolled is also included.

Survey #2 was three pages in length and requested information on:

- A. Graduate Information: includes information on student attrition and deceleration, characteristics of recent graduates and starting salary for recent graduates of those recent graduates.

One of the goals of the current authors with the Annual Report was to make it more user friendly. To move closer to this end, the Annual Report application was moved "on-line" two years ago, allowing the member programs to enter data directly over the Internet, facilitating the collection and analysis of data. Sixty-eight programs (61% of the respondents) submitted their program's data via this method.

Survey Period and Response Rate

Survey #1 was mailed (10/24/2001) to 130 P.A. programs (one program ceased operation after survey was sent), including four programs enrolling students for the first time in the 2001-2002 academic year. An initial deadline of December 15, 2001 was established. A total of 112 responses were received for a response rate of 86.8%.

The second survey was included with survey #1. Eighty-eight survey #2's were received.

A total of 117 programs returned some portion of survey #1 and/or survey #2, for an overall response rate of 90.7%.

Data Entry and Analysis

In the process of editing each questionnaire, obvious misinterpretations or inconsistencies in the responses to specific items were resolved by telephoning or e-mailing the person completing the survey. A series of contingency checks were made to identify invalid characters or extreme values in any field.

In general, analyses of the data consisted of descriptive statistics on the variables of interest, e.g. arithmetic mean, standard deviation, median, and range of values. Medians were listed on tables when they differed significantly from the mean. T-tests were used to determine levels of statistical significance between groups. Regression equations were developed for program budget and student enrollment as well as various parameters associated with personnel salary and certain variables, which were expected to influence salary, i.e., gender, months of experience, academic credentials and academic rank. Data are not reported when only one person is represented in a category.

Tables and figures presented in this report represent aggregate data from the respondents. Due to missing data and/or unusable answers, the number of respondents to a particular questionnaire item varied. In most cases, the maximum number of valid responses was 105, however, in some cases, data on nonrespondents was obtained from the APAP Directory or personal communication with nonrespondent programs, in which case a total of 130 programs were represented.

Quality Improvement

Given that the Report is an ongoing enterprise, the authors are interested in improving its usefulness to our customers. In 1995, the APAP Board of Directors approved the formation of an advisory board to review the planning and direction of the Report and to help to continually improve the product.

Constructive comments on how to improve the Report or any of its survey instruments are welcome at any time. Please address any comments to: Albert Simon, M.Ed., PA-C (e-mail: BSimon@francis.edu) or Marie Link (e-mail: MLink@francis.edu), Department of Physician Assistant Sciences, Saint Francis University, P.O. Box 600, Loretto, PA 15940.

The "Typical" P.A. Program

The data reported herein represents our best estimate of the population value for the variables involved and were used to describe the characteristics of the "typical" P.A. program. Mean and/or median values were reported for each characteristic examined. In calculating mean values, entries with zero values were usually included while 'missing' values were uniformly excluded. When only partial data were available, the number of respondents was identified.

In some cases, totals reported for a given category may not reflect a simple summation of the subcategories. For example, in the table presenting data on applicant age (Table 55), one program may report the total number of applicants, but not report data for any of the age subcategories for applicants. In such a case, means for each of the age groups are reported based on the programs that provided information. The programs that reported only the total number of applicants were included in the "total" figure (N=80), but not in the subcategory data (N=71). Thus, the number of responding programs upon which the category or subcategory means were based may differ. In addition to reporting aggregate data for the "typical program," program respondents were also compared on the basis of consortia region.

Analysis of Trends Over Time: 1984-2001

In comparing current data to similar data collected in previous years, trends occurring in various aspects of P.A. educational programs were identified. Specific variables for which comparisons have been made include program budget, student expenses and financial aid, salaries of program personnel, number of applicants and students enrolled, student characteristics (age, gender, ethnicity, health related experience, G.P.A. and attrition) and employment characteristics of program graduates (i.e., rate of employment, medical specialty, type of practice, starting salary).

Additional Copies of this Report

Copies of this Report may be purchased by contacting: Association of Physician Assistant Programs, 950 N. Washington Street, Alexandria, VA 22314-1552 (703-548-5538).

SECTION I. GENERAL PROGRAM CHARACTERISTICS

Listing of P.A. Programs by Consortia Region

Operational programs are listed by state and APAP consortium in Table 1. The Northeastern (N=29) region had the largest number of programs, while the Heartland (N=13) had the fewest number of programs. In total, 42 states (including the District of Columbia) currently have an operational P.A. program.

Table 1. Consortium Regions of Operational Physician Assistant Programs

NORTHEASTERN CONSORTIUM (N=29):

Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York

Albany-Hudson Valley	Mercy College	Seton Hall University/UMDNJ
Bronx Lebanon Hosp. Center	NY Institute of Technology	Springfield College
Brooklyn Hosp/L.I. University	Northeastern University	SUNY/Hlth Sci Brooklyn
Catholic Med. Ctr., Brooklyn	Notre Dame College - closed	SUNY/Stony Brook
CUNY/Harlem Hospital	Quinnipiac College	Touro College - Bay Shores
Cornell University	Pace University	Touro College - New York
D'Youville College	Rochester Institute of Tech.	Univ. Of New England
Daemen College	Rutgers University	Wagner College/Staten Isl
LeMoyne College	St. Vincent's Catholic Med Centers	Yale University
Massachusetts College of Pharmacy	Seton Hall University	

EASTERN CONSORTIUM (N=19):

Maryland, Pennsylvania, District of Columbia

Allentown Coll. St. Francis de Sales	George Washington Univ.	Philadelphia College of Osteo Med
Anne Arundel Comm. College	Howard University	Philadelphia University
Beaver College	King's College	St. Francis College
Chatham College	Lock Haven University	Seton Hill College
Duquesne University	Marywood University	Univ. MD – Eastern Shore
Community College of Balt. County	MCP - Hahnemann Univ Hlth Sci	
Gannon University	PA College of Technology	

SOUTHEASTERN CONSORTIUM (N=23):

Alabama, Florida, Georgia, Kentucky, N.Carolina, S. Carolina, Tennessee, Virginia, West Virginia

Alderson-Broadb College	James Madison University	South College
Barry University	Medical College of Georgia	Trevecca Nazarene University
Bethel College	Medical Univ South Carolina	Univ. of Alabama - Birmingham
College of Health Science	Methodist College	University of Florida
Duke University	Miami-Dade Community College	University of Kentucky
East Carolina University	Mountain State University	University of South Alabama
Eastern VA Medical School	Nova Southeastern University	Wake Forest University
Emory University	Shenandoah University	

MIDWESTERN CONSORTIUM (N=26):

Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, North Dakota, Ohio, South Dakota, Wisconsin

Augsburg College	Medical College of Ohio	Univ of Osteopathic Med
Butler U/Clarian Health	Midwestern University	University of St. Francis
Central Michigan Univ.	St. Louis University	Univ. of South Dakota
Cook County/Malcolm X	Southern Illinois University	University of WI - LaCrosse
Cuyahoga (P.A. and S.P.A.)	Southwest Missouri State Univ.	University of WI-Madison
Finch Univ of Hlth Sci	University of Detroit Mercy	Wayne State University
Grand Valley State University	University of Findlay	Western Michigan University
Kettering College	University of Iowa	
Marquette University	Univ. of North Dakota	

HEARTLAND CONSORTIUM (N=13):

Kansas, Louisiana, Nebraska, Oklahoma, Texas

Baylor College of Medicine
Interservice PA Program
Louisiana St. University
Texas Tech University
Union College

University of Nebraska
Univ. of North Texas Hlth Sci Cent
University of Oklahoma
University of Texas/Galveston
University of Texas/Pan Am

University of Texas/San Antonio
University of Texas/SW Med Ctr
Wichita State University

WESTERN CONSORTIUM (N=20):

Arizona, California, Colorado, Idaho, Montana, New Mexico, Oregon, Utah, Washington

AZ School of Hlth Sci
Charles Drew Univ
Loma Linda University
Idaho State Univ
Midwestern University
Oregon Hlth Sci Univ
Pacific University

Red Rocks Community College
Riverside Community College
Rocky Mountain College
Samuel Merritt College
Stanford University
Univ of California - Davis
University of Colorado

University of New Mexico
University of Saint Francis
Univ of Southern California
University of Utah
University of Washington
Western Univ. of Hlth Science

Nonrespondents to neither Survey #1 nor Survey #2; N=13

The above listing is based upon the APAP Consortium guidelines. Each program responded as to which consortia they belonged. The geographic distribution of the 130 operational P.A. Programs is shown in Figure 1.



Figure 1. Geographic Distribution of Programs

A summary of P.A. programs by sponsoring institution and by highest credential awarded is shown in Table 2 (next page). The majority of P.A. programs were sponsored by either a university (68%) or 4-year college (23%);

seven programs were associated with a two-year college; four programs were sponsored by a hospital and one was sponsored by the armed services. Fifty-four percent of programs award a masters degree (N=70). Forty-four programs award a baccalaureate degree upon graduation (33.85%). The remaining programs (N=16; 12%) awarded either a certificate or an associate degree as the highest credential granted. Over the past five years, twenty-two baccalaureate programs converted to masters programs and four programs converted from a certificate to a masters degree. Some programs offer a graduate degree on completion of additional courses (e.g., public health, preventive medicine, geriatrics, exercise science). These programs were not included as “entry-level” masters programs.

Table 2. P.A. Programs by Type of Sponsoring Institution and Credential Awarded*

<u>Type of Sponsoring Institution</u>	<u>N</u>	<u>%</u>	<u>Highest Credential Awarded</u>	<u>N</u>	<u>%</u>
University	88	67.69	Master	70	53.85
4-Year College	30	23.08	Baccalaureate	44	33.85
Community College	7	5.38	Associate	5	3.85
Hospital**	4	3.08	Certificate	11	8.46
Military**	1	0.77			
Total	130	100.00		130	100.00

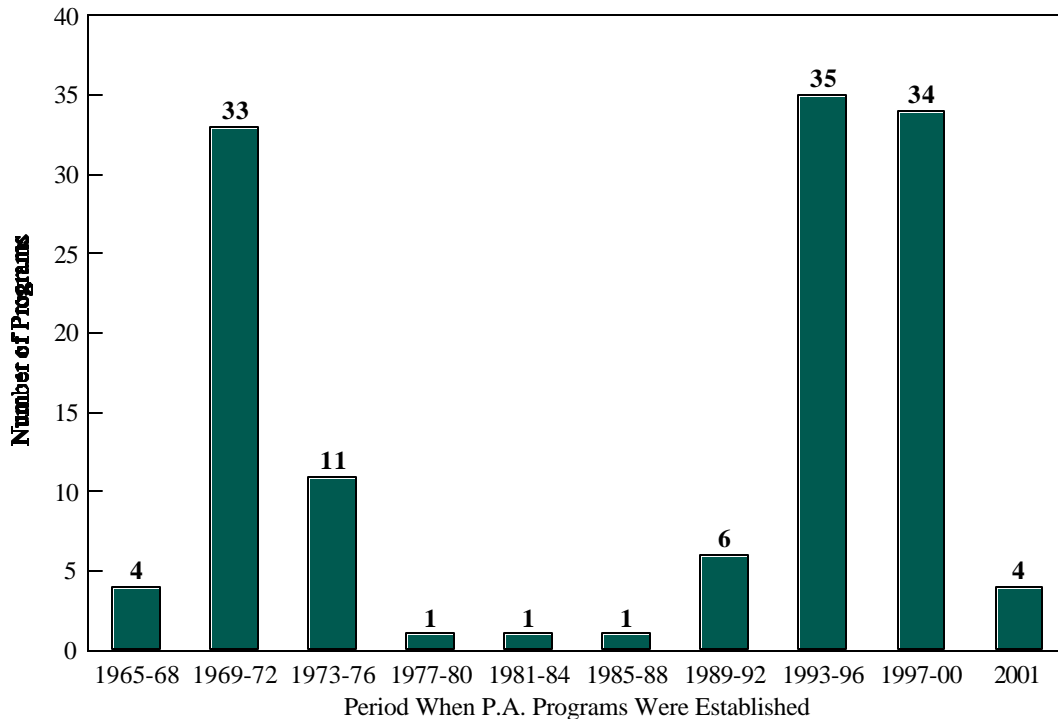
* Nonrespondent information was drawn from APAP.

** Degrees granted from University/College Affiliates.

Year Current P.A. Programs Were Established, 1965 Through 2001

The distribution of respondent programs by year of their first entering class is shown in Figure 2.

Figure 2. Programs By Year of First Entering Class

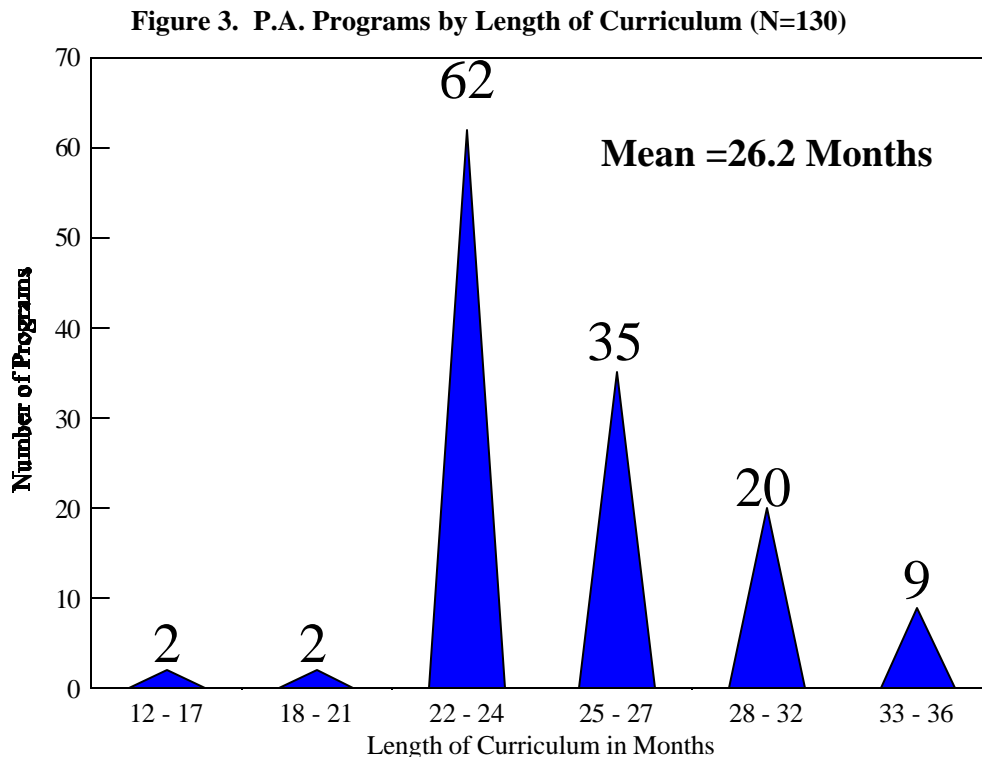


One hundred thirty programs are represented, as the data for the nonrespondent programs were obtained from previous Report surveys or the Accredited Physician Assistant Programs² from AAPA/APAP. The first P.A. program was established in 1965 at Duke University Medical Center and over the next four years (1965-1968) three additional programs were developed. With the passage by Congress of the Comprehensive Health Manpower Act in 1971, federal training grant support provided the stimulus for the rapid development of the majority of current P.A. programs. Indeed, over the subsequent eight-year period (1969 through 1976), forty-four new programs were established. Over the next twelve years, from 1977 through 1988, only three additional programs were established. In the years 1993-1996, 35 new programs were established and from 1997 to 2000, 34 new programs enrolled students for the first time. In 2001, four new programs were accredited.

Current P.A. Programs by Length of Curriculum

Historically, the length of the professional P.A. curriculum has varied across programs. For example, at some institutions, the P.A. program is a 4-year baccalaureate curriculum that admits students as freshmen. The first two years of this curriculum involves liberal arts and preparatory science courses followed by two years of professional P.A. studies. In some cases, these programs admit students with advanced standing at the beginning of the professional curriculum, typically two years in length. At the other extreme, graduate-level programs admit students who have completed all liberal arts and preparatory science courses and have earned a baccalaureate degree prior to admission. The graduate or master's level curriculum typically includes additional courses and/or experiences in research related activities in addition to the professional curriculum.

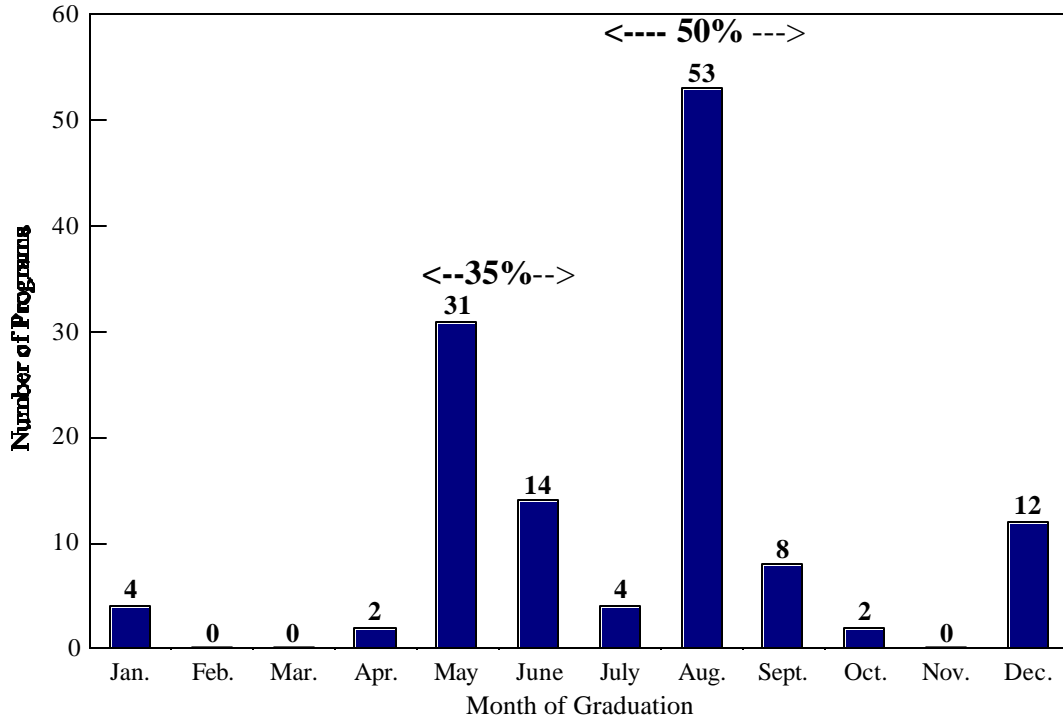
Figure 3 illustrates the diversity across programs relative to the length of the curriculum. The mean length of the curriculum was 26.2 months (N=130) with a range of 12 to 36 months. For convenience, the programs were organized into six groups. The majority of programs were between 22-24 months (62) and 25 to 27 months (35) in length. The median was 24 months. The length of the curriculum of P.A. programs has increased in the past several years, for example, in 1986 and 1990, the average length of the curriculum was reported as 23.7 and 24.0 months, respectively. The mean of 26.2 months represents an increase of 2.7% from last year. Non-respondent information was obtained from the APAP Program Directory⁽¹⁾.



Current P.A. Programs by Month of Graduation

The distribution of P.A. programs by month of graduation is shown in Figure 4. Data for nonrespondent programs and those that have been newly established were supplemented by information from the 2001 P.A. Program Directory⁽¹⁾.

Figure 4. P.A. Programs By Months of Graduation (N=130)



Currently, a majority (N=110; 84.6%) of programs graduate students over two periods, (a) between May and June (N=45; 34.6%) and (b) July, August and September (N=65; 50.0%). It should be noted that two programs graduate two classes per year and one program graduates three classes per year.

Financial Characteristics of P.A. Programs

Information concerning the sources of financial support for P.A. programs is shown in Table 3 (next page). Only data from those programs reporting financial support from the sources indicated were used to calculate the sample mean and range for each category. The number of programs reporting no support from a particular source (last column) is also shown. Note, data presented in the latter column excludes those programs that did not respond to a specific item. Most programs (N=72) reported support from more than one source, for example, 36 programs reported two sources, 26 programs three sources, 7 programs four sources and 3 programs reported five or more sources of support.

The sources of financial support were classified as either internal or external. Internal support referred to funds available from within the sponsoring institution and/or tuition and fees retained by the program. External support included those funds available from outside the institution, such as federal or state grants, support from public or private foundations, and/or from private industry.

The primary source of internal financial support for the majority (N=91) of programs was the sponsoring institution, providing an average of \$504,324/year/program (S.D.=\$394,482). Ten programs reported that they received no financial support from their sponsoring institution. Fifty-four respondents indicated that they received substantial support from student tuition and fees paid directly to the program (mean=\$525,016, S.D.=\$718,350). Forty-Seven programs did not receive revenue from student tuition or fees.

Table 3. Sources of Financial Support for Physician Assistant Programs

<u>Source of Financial Support</u>	<u>Mean</u>	<u>Median</u>	<u>Range</u>	<u>N</u>	<u># With No Support</u>
<u>Internal</u>					
Sponsoring Institution	\$504,324	\$476,000	\$ 25,000 - 2,993,000	91	10
Tuition and Fees (Retained by Program)	\$525,016	\$520,000	\$ 7,000 - 2,545,000	54	47
<u>External</u>					
Federal Grants	\$154,834	\$125,000	\$ 15,000 - 600,000	33	68
State Grants	\$144,600	\$185,000	\$ 2,000 - 295,000	9	92
Foundations	\$ 81,727	\$ 15,000	\$ 2,000 - 526,000	11	90
Private Donation	\$ 16,625	\$ 10,000	\$ 1,000 - 50,000	8	93
Industry	\$ 53,250	\$ 49,500	\$ 10,000 - 104,000	4	97
A.H.E.C. Support	\$ 19,363	\$ 10,000	\$ 2,000 - 70,000	16	85
Other	\$ 61,857	\$ 20,000	\$ 4,000 - 372,000	14	87
Total Program Support	\$873,977	\$721,000	\$105,598 - 2,993,000	101	0

External financial support for programs was primarily from federal training grants from the Department of Health and Human Services, Division of Medicine, Bureau of Health Professions. Thirty-three programs (33% of the respondents to this item) received federal funds during the 2001-2002 fiscal year. The amount of federal support ranged from \$15,000 to \$600,000, averaged \$154,834 per program (S.D.= \$22,488) and accounted for 17.7% of the total budget, higher than the figure (14.1%) reported last year. Sixty-eight programs indicated they did not receive federal grant support in 2001-2002. In addition to federal training grants, nine programs indicated they received state grants averaging \$144,600 per year and fourteen programs reported financial assistance received from other sources (e.g., rate appeals, teaching contracts, hospitals, training grant, clinical service and scholarships) averaging \$61,857 per program.

The total annual financial support from all sources for the 101 programs reporting averaged \$873,977 per program (median=\$721,000; S.D.= \$594,594). An analysis of the association between total budget and total student enrollment was examined. Two correlations were derived, the first using full-time (F.T.) students enrolled ($r = 0.57$; $p < .001$) and the other utilizing the sum of F.T. and 1/2 of the part-time (P.T.) students ($r = 0.66$; $p < .001$). The results demonstrated a statistically significant relationship between enrollment and program budget.

The following prediction equations were derived from the data using a least squares analysis, estimating program budget and total student enrollment:

(a) Total Program Budget = (584.172) + (3.74 x # F.T. students enrolled) (in \$1,000's)

(b) Total Program Budget = (601.544) + (3.89 x # (F.T. + P.T./2) students enrolled) (in \$1,000's)

Thus, using equation "a" for a program with an enrollment of 50 F.T. students, one would predict a budget of \$771,172 per year while equation "b" predicts, for a program with 50 F.T. and 10 P.T. students, a budget of \$815,494/year.

In terms of the reported program budget, the cost of training the average P.A. student for one year of professional training can be roughly estimated by dividing the program budget by the total number of students enrolled (F.T. + P.T./2). Thus, for the 2001 academic year, the cost for the typical program was approximately \$11,500 to educate each student (mean budget of \$873,977 divided by an average enrollment of 76 students/program).

The estimated cost/student is based on number of students enrolled and reported "program" budget. It should be noted, however, that these figures may exclude (1) overhead costs provided by the institution, (2) faculty, other

than "core" program faculty (e.g., basic science faculty) that are supported by their respective departments and (3) preceptors responsible for the clinical training of P.A. students. Therefore, the values reported herein may be substantially underestimated.

Program Budget and Federal Support by Region

A comparison of federal support and total program budget by consortia region is shown in Table 4. Programs located in the Western region reported the largest total budget (\$1,214,475/program). The most federal grant support was located in the Northeastern region, averaging \$266,800/program. Programs in the Heartland region reported the smallest total budget (\$609,985/program). Programs in the Heartland region also had the least amount of support from federal training grants (\$106,984/program). The proportion of total program budget derived from federal funds was lowest (9.5%) in the Eastern region, while programs in the Northeastern region derived over one-third of their total budgets from federal sources.

Table 4. Total Program Budget and Federal Training Grant Support by Consortia Region

Consortia <u>Region</u>	<u>N</u>	<u>Total Budget</u>		<u>Federal Grants</u>		<u>% of Budget</u>	<u>Fed. Support</u>	
		<u>Mean</u>	<u>S.D.</u>	<u>Mean</u>	<u>S.D.</u>		<u>Yes</u>	<u>No</u>
Northeastern	24	\$ 789,176	\$533,296	\$266,800	\$181,455	33.8%	5	19
Eastern	13	\$ 849,375	\$431,375	-----	-----	9.5%	1	12
Southeastern	17	\$ 888,765	\$634,471	\$123,800	\$ 46,829	13.9%	5	12
Midwestern	21	\$ 869,221	\$695,475	\$123,571	\$ 28,705	14.2%	7	14
Heartland	11	\$ 609,985	\$199,806	\$106,984	\$ 58,336	17.5%	6	5
Western	<u>15</u>	<u>\$1,214,475</u>	<u>\$649,540</u>	<u>\$174,625</u>	<u>\$ 59,665</u>	<u>14.4%</u>	<u>9</u>	<u>6</u>
Total	101	\$ 873,977	\$594,594	\$154,834	\$ 92,488	17.7%	33	68

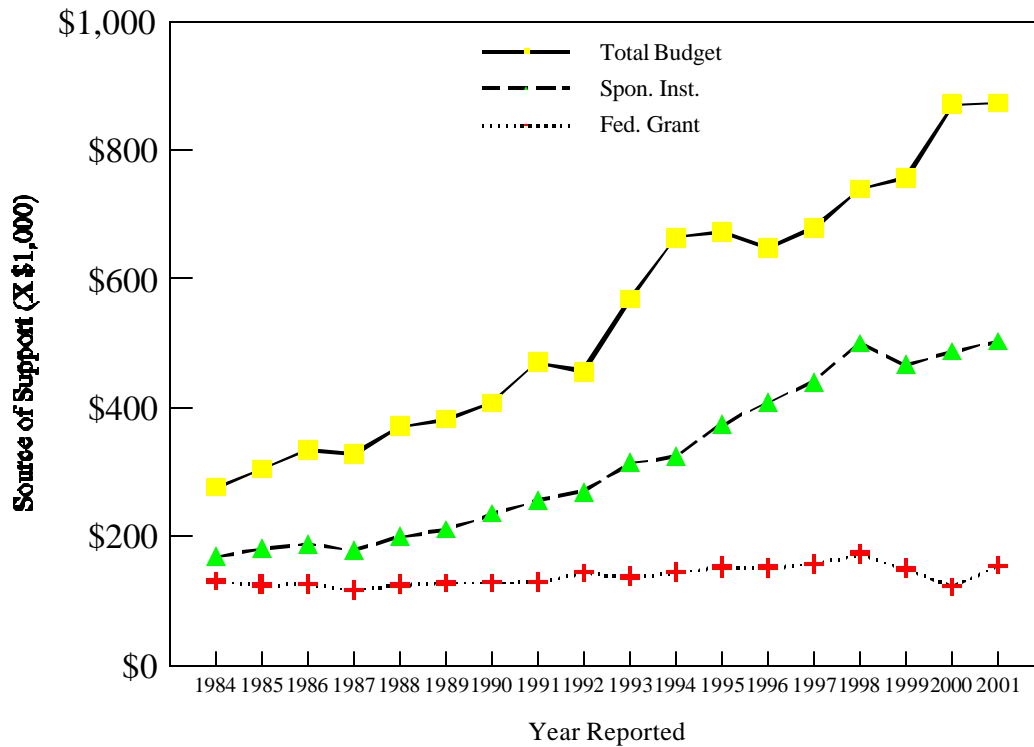
Trends in P.A. program support from 1984 through 2001 are shown in Table 5 and shown graphically in Figure 5 (next page). The total budget column is not a summation of institutional and federal grant support.

Table 5. Trends in Physician Assistant Program Support, 1984 Through 2001

<u>Year</u>	<u>Sponsor. Instit.</u>		<u>Federal Grant</u>		<u>Total Budget</u>		<u>% Budget Fed. Grant</u>	
	<u>N</u>	<u>Mean</u>	<u>N</u>	<u>Mean</u>	<u>N</u>	<u>Mean</u>	<u>N</u>	<u>Mean</u>
1984-85	31	\$169,581	27	\$130,889	37	\$276,919	27	35%
1985-86	35	\$181,171	31	\$125,484	38	\$305,868	31	41%
1986-87	37	\$189,135	25	\$126,457	42	\$334,690	33	39%
1987-88	39	\$178,590	35	\$117,429	45	\$328,444	35	38%
1988-89	40	\$200,700	34	\$125,118	44	\$371,386	34	34%
1989-90	35	\$211,400	33	\$127,600	44	\$381,978	34	33%
1990-91	41	\$235,780	36	\$128,222	47	\$409,745	36	31%
1991-92	44	\$257,182	37	\$129,243	48	\$470,063	37	28%
1992-93	49	\$270,346	35	\$143,514	55	\$457,200	35	31%
1993-94	47	\$315,085	35	\$137,514	55	\$568,564	35	24%
1994-95	54	\$324,889	41	\$144,926	58	\$664,797	41	22%
1995-96	65	\$373,957	37	\$152,514	71	\$673,975	37	23%
1996-97	67	\$410,456	35	\$152,300	77	\$648,871	35	22%
1997-98	85	\$441,129	34	\$157,765	90	\$679,096	34	22%
1998-99	79	\$501,150	37	\$173,030	90	\$740,898	37	23%
1999-00	92	\$466,641	36	\$150,111	103	\$756,946	36	20%
2000-01	89	\$487,739	31	\$123,055	99	\$871,824	31	14%
2001-02	91	\$504,324	33	\$154,834	101	\$873,977	33	18%

The total budget for 2001 increased by \$2,153 from the previous year. The level of training grants accounted for 17% of the total budget, an increase of 3% from 2000. Overall, the total program budget increased by an average of 8.1% annually and the program support from the sponsoring institution increased by an average of 7% annually from 1984 to 2001. Federal support increased by 26% from 2000. The proportion of the total budget from federal training grants has decreased from 41% in 1985 to 18% in 2001. As shown in Figure 5 there has been a sustained increase in both the total program budget and institutional support since 1984. Since 1984, total program budget increased by over 216% while support from the sponsoring institution increased 197%.

Figure 5. Trends in P.A. Program Support: 1984 Through 2001



Student Educational Expenses

For the class entering in 2001, respondents estimated student tuition and educational expenses for the entire length of the program. These results are shown in Table 6. No information was requested concerning living expenses.

Table 6. Tuition and Expenses of P.A. Students

<u>Tuition for Entire Program</u>	<u>Mean</u>	<u>Range</u>	<u>N</u>	<u>Mean/Month/Program</u>
Resident Student	\$28,036	\$ 3,900- 80,000	105	\$1,008
Nonresident Student	\$35,536	\$12,300- 80,000	105	\$1,278
<u>Books, Fees, and Equipment</u>	\$ 4,774	\$ 800- 47,000	104	\$ 187
<u>Total Student Costs: (Tuition, Books, Fees, Equipment)</u>				
Resident Student	\$32,810	\$6,700-101,000	104	\$1,287
Nonresident Student	\$40,310	\$8,200-137,000	104	\$1,581

It should be noted that for the first five Annual Reports, tuition was reported for the student's ENTIRE professional program, for the next eight Annual Reports tuition was reported for the current academic year, however, with the 14th Annual Report, tuition and other educational expenses (e.g., books, fees, equipment) were again reported for the entire professional program.

On average, there was a \$7,500 difference between resident and nonresident tuition among the 105 programs responding. Data are also expressed as the mean cost per student per month. The results of this computation are shown in the right column of Table 6, and indicate that the typical resident student paid an average tuition of \$1,008 per month while the nonresident paid \$1,278 per month, a 24% difference.

Expenses associated with books, equipment and fees averaged \$4,774 per student for their entire professional training. These expenditures represented approximately 14.6% and 11.8% of the total educational expenses for resident and nonresident students, respectively. The total expenses incurred by the typical P.A. student for their entire P.A. education (includes tuition, books, equipment, and fees) averaged \$32,810 for residents and \$40,310 for nonresidents. The average total cost per month was \$1,287 for residents and \$1,581 for nonresident students.

As shown in Table 7, the majority of students (87.6%) received financial aid, which averaged \$17,315 per student per year and accounted for 106% of the costs of tuition, fees, books, and equipment (\$16,405) for the typical resident student. Using these values, one can estimate that the typical resident P.A. student would be indebted approximately \$34,630 (2 X \$17,315) at the conclusion of their professional education.

Table 7. Financial Aid Support Provided P.A. Students

<u>Financial Aid Characteristic</u>	<u>Mean</u>	<u>Range</u>	<u>Number</u>
% Receiving Financial Aid	87.6%	28-100%	94
Amount of Aid Received/Year	\$17,315	\$1,400-42,215	89

Student Expenses by Consortia Region

Tuition (for the entire curriculum) and total costs for P.A. students during the 2001-2002 academic year are shown by consortia region in Table 8. The average resident tuition and total expenses incurred by P.A. students varied extensively across consortia region. Resident tuition was highest for students enrolled in programs located in the Eastern region (\$37,048/curriculum) and lowest for programs located in the Heartland region (\$13,425/curriculum). Nonresident tuition varied less across regions with a difference of approximately \$11,439 between the highest and lowest values. Total student expenses per month for both residents and nonresidents were highest among programs in the Eastern region. Total resident and nonresident student expenses were lowest in the Heartland region. The proportion of students receiving financial aid varied from 81.9% in the Midwestern region to 91.3% in the Southeastern region.

Table 8. Expenses of P.A. Students by Consortia Region

<u>Consortia Region</u>	<u>N</u>	<u>Mean Tuition</u>		<u>Total Costs/Month</u>		<u>% Receiving Finan.Aid</u>
		<u>Resident</u>	<u>Nonresident</u>	<u>Resident</u>	<u>Nonresident</u>	
Northeastern	25	\$31,642	\$34,758	\$1,138	\$1,250	84.1%
Eastern	14	\$37,048	\$39,698	\$1,333	\$1,428	90.8%
Southeastern	18	\$30,724	\$36,898	\$1,105	\$1,327	91.3%
Midwestern	23	\$20,243	\$33,608	\$ 728	\$1,209	81.9%
Heartland	11	\$13,425	\$28,259	\$ 483	\$1,017	84.0%
Western	14	\$33,413	\$39,331	\$1,202	\$1,415	89.9%
Total	105	\$28,036	\$35,536	\$1,008	\$1,278	87.6%

Trends in P.A. Student Expenses

Comparisons between tuition and student expenses, and the proportion of students receiving financial aid from 1984 through 2001, are shown in Table 9 and Figure 6 (next page).

Table 9. Trends in P.A. Student Expenses, 1984 Through 2001

Academic Year	<u>Mean Tuition</u>				<u>Total Expenses</u>				<u>% With</u>		<u>Fin. Aid</u> <u>Received</u>
	<u>Resident</u>		<u>Nonresident</u>		<u>Resident</u>		<u>Nonresident</u>		<u>Fin. Aid</u>	<u>%</u>	
	<u>N</u>	<u>Mean</u>	<u>N</u>	<u>Mean</u>	<u>N</u>	<u>Mean</u>	<u>N</u>	<u>Mean</u>	<u>N</u>	<u>%</u>	
1984-1985	37	\$ 6,378	36	\$ 8,986	35	\$ 7,669	34	\$ 9,962	33	65%	N/A
1985-1986	40	\$ 7,098	40	\$ 9,565	40	\$ 8,588	40	\$11,055	40	65%	N/A
1986-1987	46	\$ 7,626	43	\$10,451	45	\$ 9,247	42	\$12,155	39	63%	\$3,866
1987-1988	47	\$ 8,012	47	\$10,775	47	\$ 9,643	47	\$12,494	43	63%	\$4,060
1988-1989	47	\$ 9,472	47	\$13,660	47	\$11,485	47	\$15,681	43	67%	\$5,086
1989-1990	47	\$ 9,978	47	\$14,174	47	\$11,706	47	\$15,902	43	69%	\$5,663
1990-1991	47	\$10,620	47	\$14,614	47	\$12,495	46	\$16,511	42	71%	\$6,268
1991-1992	48	\$11,714	47	\$16,240	48	\$13,890	47	\$18,440	45	71%	\$6,860
1992-1993	55	\$13,092	55	\$17,772	55	\$15,694	55	\$20,375	51	71%	\$7,558
1993-1994	55	\$14,470	55	\$18,774	55	\$17,153	55	\$21,457	49	71%	\$8,755
1994-1995	59	\$16,030	59	\$21,106	59	\$18,676	59	\$23,752	53	77%	\$9,846
1995-1996	69	\$17,872	69	\$22,702	69	\$21,308	69	\$26,132	64	79%	\$11,251
1996-1997	76	\$20,132	76	\$25,088	76	\$23,695	76	\$28,775	68	79%	\$14,114
1997-1998	91	\$20,296	91	\$26,228	91	\$24,057	91	\$29,989	84	85%	\$13,890
1998-1999	92	\$22,428	92	\$27,922	92	\$26,653	92	\$32,147	83	83%	\$13,808
1999-2000	106	\$24,407	105	\$31,001	106	\$28,840	105	\$35,434	94	84%	\$15,909
2000-2001	101	\$28,048	101	\$34,662	101	\$32,684	101	\$39,298	88	86%	\$16,930
2001-2002	105	\$28,036	105	\$35,536	104	\$32,810	104	\$40,310	94	88%	\$17,315

Tuition has increased 340% and 295% over the past eighteen years for resident and nonresident students, respectively, an average of 9.7% and 9.1% per year, respectively. Similarly, total student expenses (which includes tuition, books, equipment, and fees over the entire program) increased by 328% and 305% over the eighteen-year period for resident and nonresident students, respectively.

The proportion of students receiving financial aid averaged 74% from 1984 through 2001 and has varied within a narrow range, i.e., 63% to 88%, over time. It should be noted that the data shown in Table 9 and Figure 6 represents the tuition and costs expended by the typical student for the entire professional program and does not include pre-program academic preparation or living expenses. Beginning with the 1986 annual survey, respondents were asked to estimate the amount of financial aid received per student. Inspection of Figure 6 illustrates that financial aid received by the typical student increased by approximately 344% since 1986; total expenses increased by 261% for resident and 230% for nonresident students during that same period.

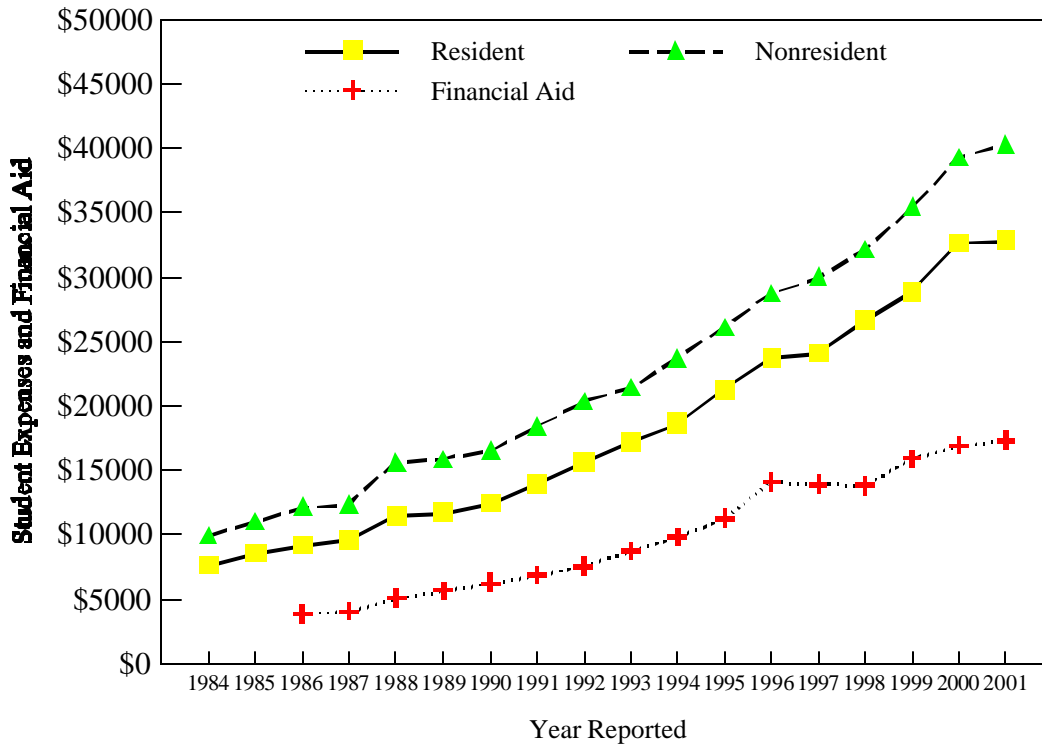
National Health Service Corps (N.H.S.C.) Support

The number and proportion of students receiving support from the National Health Service is shown in Table 10 (next page). Of the four types of support available, N.H.S. Corps Scholarships accounted for 77/88 (88%). In total, 40 scholarships were reported among the first year class and 46 among the second year class.

Table 10. Students: Public Health Service Scholarships

Class	N.H.S. Corps		COSTEP		Loan Repay.		Comm. School		Total
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>
1st Year	35	87.5%	0	0.0%	4	10.0%	1	2.5%	40
2nd Year	40	87.0%	5	10.9%	1	2.1%	0	0.0%	46
3rd Year	<u>2</u>	100.0%	<u>0</u>	0.0%	<u>0</u>	0.0%	<u>0</u>	0.0%	<u>2</u>
Total	77		5		5		1		88

Figure 6. Trends in P.A. Student Expenses: 1984 Through 2001



SECTION II. PROGRAM PERSONNEL

Classification of Physician Assistant Program Personnel

In 1984, the first APAP survey yielded information on the "core" personnel employed by P.A. programs. Core personnel were defined as those who devoted at least 50% of their time directly to program-related activities. These findings indicated that a total of 258 individuals were employed by the 36 programs responding (7.2 individuals/program and 6.0 FTE's/program). At that time, the personnel were classified into four categories based on their position: administrative (106; 41%), clerical (45; 18%), educational (96; 37%), and research (11; 4%). The total number of employees per program ranged from 3 to 13 with an average of one employee for every 7.7 students enrolled in the typical program.

Program personnel (excluding clerical persons) were further classified into two groups, those that were credentialed as a P.A. and those that were not (herein referred to as non-P.A.'s). The reader is referred to previous Annual Reports for a more detailed description of these personnel for each year. Based on the personnel data over the past eighteen years, it has been shown that there are an average of 3.5 to 4.7 physician assistants (P.A.'s) employed per program. This figure excludes program directors, many of whom were P.A.'s.

For purposes of our present personnel analysis, program staff and faculty were divided into three groups: (a) program directors, (b) medical directors, (c) "program personnel" which included P.A.'s (excluding program directors) and non-P.A.'s (excluding program directors). The P.A. and non-P.A. groups were further subdivided into four categories (I, II, III, and IV) on the basis of their position titles as summarized in Table 11. Category I includes program personnel whose responsibilities were generally associated with the first-year curriculum, typically including courses in the basic and behavioral sciences and/or the curriculum associated with

Table 11. Classification of Program Personnel by Category

<u>Category</u>	<u>Typical Position Titles</u>	
I	Lecturer/Instructor Educ./Acad. Coordinator	Educational Specialist Course Coordinator
II	Clinical Coordinator Clinical Instructor	Clinical Skills Coordinator
III	Assoc. or Assist. Director Program Assistant	Executive Assistant Co-Director
IV	Admin. Secretary/Asst. Office Supervisor	Secretary Data Manager

history/physical examination skills as well as components of introduction to clinical medicine courses. Category II personnel were those involved in the second year or clinical rotation phase of the educational program. These individuals generally assumed clinical teaching or evaluation responsibilities and/or coordinated the students' clinical training assignments. Category III describes those individuals who had primarily administrative-level positions, but excluded those that were program or medical directors. Category IV included personnel who were mainly classified as support staff. Category IV personnel were not considered faculty.

It should be appreciated that program faculty and staff often share responsibilities across teaching, administrative and research activities. Despite this limitation, this classification is a useful way to describe and analyze core program personnel. The majority of the tables that follow in this section list Category IV personnel information, however it is not included in the total/mean columns. Please refer to each individual table to determine if it is included or not.

Number of P.A. and Non-P.A. Program Personnel by Category

The number of P.A. and non-P.A. program personnel by category is shown in Table 12. It should be noted that program directors are not included in Tables 12 through 31, unless specifically indicated. Across all four categories, there were 720 (203 Category IV) personnel reported by survey respondents (N=107; 6.7 per program), 403 P.A.'s and 317 non-P.A.'s. Ninety-six programs indicated that they had at least one Category I - III P.A. (mean of 4.2/program) and 46 programs indicated that individuals without a P.A. credential were employed in at least one of the I - III categories (mean of 2.5/program).

Table 12. P.A. and Non-P.A. Program Personnel by Category

<u>Characteristic</u>	<u>Personnel Category</u>				<u>Categories</u>	
	<u>I</u>	<u>II</u>	<u>III</u>	<u>IV</u>	<u>I - III</u>	
<u>Physician Assistants</u>						
Total Number	209	164	30	0	403	403
# of Programs*	96	93	23	0	96	107
Mean #/Program	2.2	1.8	1.3	0.0	4.2**	3.8***
<u>Non-Physician Assistants</u>						
Total Number	63	15	36	203	114	114
# of Programs*	45	12	28	87	46	107
Mean #/Program	1.4	1.3	1.3	2.3	2.5**	1.1***

- * Number of programs reporting at least one P.A. or non-P.A. in a category.
- ** Mean is based on number of programs reporting personnel in a category.
- *** Mean based on all (N=107) programs.

The majority of program personnel in Categories I - III were credentialed as P.A.'s (78%) as compared to non-P.A.'s (22%). Proportionately, there were relatively few non-P.A.'s in Category II positions (9.1% of Category II personnel). Across all programs (N=107), the mean per program is 3.8 P.A.'s and 1.1 non-P.A.'s.

Number of P.A. Program Personnel by Region

The total number of personnel (P.A. and non-P.A. personnel) associated with P.A. programs by consortia region and category is shown in Table 13. Physician assistant programs located in the Eastern and Western regions of the United States employed the greatest number of Category I - III P.A.'s and non-P.A.'s per program.

Table 13. P.A. and Non-P.A. Program Personnel by Category and Region

<u>Consortia Region</u>	<u>N</u>	<u>Personnel Category</u>				<u>Total</u>	<u>Mean per Program (Cat I-III)</u>
		<u>I</u>	<u>II</u>	<u>III</u>	<u>IV</u>		
Northeastern	25	29 (12)	41 (0)	10 (3)	0 (45)	80 (60)	3.2/(0.6)
Eastern	15	39 (11)	30 (1)	3 (3)	0 (22)	72 (37)	4.8/(1.0)
Southeastern	18	35 (8)	22 (1)	3 (8)	0 (23)	60 (40)	3.3/(0.9)
Heartland	11	25 (8)	18 (1)	5 (3)	0 (26)	48 (38)	4.4/(1.1)
Midwestern	22	41 (9)	23 (6)	2 (8)	0 (36)	66 (59)	3.0/(1.0)
Western	16	40 (15)	30 (6)	7 (11)	0 (51)	77 (83)	4.8/(2.0)
Total	107	209 (63)	164 (15)	30 (36)	0 (203)	403 (317)	3.8/(1.1)

* # of non-P.A. personnel are in parentheses.

Programs located in the Midwestern region had the fewest P.A.'s associated with the program (mean of 3.0/program). Programs in the Northeastern region employed the least number of Category III non-P.A.'s (0.6/program). Programs in the Western region employed the greatest number of Category IV personnel per program (3.2/program), while programs in the Southeastern region employed the least (1.3/program).

General Characteristics of P.A.'s and Non-P.A.'s Employed by Programs

The general characteristics of physician assistant personnel employed by P.A. programs, by category, excluding non-P.A. program personnel, are shown in Table 14. Across all categories, P.A.'s devoted an average of 90% of their time to the program; the majority was classified as full-time employees.

Table 14. General Characteristics of Physician Assistant Personnel

<u>Characteristic</u>	<u>Personnel Category</u>			<u>Total</u> N = 403
	<u>I</u> N = 209*	<u>II</u> N = 164	<u>III</u> N = 30	
<u>Mean % Time</u>	89.3%	90.8%	93.0%	90.2%
<u>Annual Salary</u>	<u>N = 187</u>	<u>N = 147</u>	<u>N = 27</u>	<u>N = 361</u>
Mean**	\$60,662	\$62,266	\$71,292	\$62,110
Range	\$29,000 - \$98,000	\$26,000 - \$88,270	\$30,016-\$91,700	\$26,000-\$98,000
<u>Months in Position</u>	<u>N = 209</u>	<u>N = 159</u>	<u>N = 30</u>	<u>N = 398</u>
Mean	48.4	49.7	88.6	51.9
Median	38.0	36.0	57.5	44.0
Range	1-276	1-276	3-420	1-420

* Number of P.A.'s in category.

** Salaries adjusted to 1 FTE

There were some differences between categories in the percent of time the P.A. worked. Twenty-two of the 30 P.A.'s in Category III were employed on a full-time basis, whereas P.A.'s in Categories I and II averaged 0.90 FTE. The mean annual salary across all categories was \$62,110 with a range from \$26,000 to \$98,000. On average, individuals had been in their position for 51.9 months (range 1-420 months). There was some difference in mean salary across categories, ranging from \$60,662 for Category I to \$71,292 for Category III, a 17.5% increase. P.A.'s in Category III had held their positions for the longest period of time, averaging 89 months, while the majority of P.A.'s in Category I had been associated with the program for the least amount of time (48 months).

Clinical Activity of Physician Assistant Personnel

General characteristics of the clinical activity of P.A. personnel are shown in Table 15 (next page). Note, P.A. credentialed program directors were **also** included in this analysis, however medical directors **were not**. The following information was requested of respondents: the number of personnel that were clinically active, mean number of hours worked per week, number that were reimbursed for their clinical services, the amount paid for said services (mean hourly wage) and whether their clinical earnings were included in the salary reported in the personnel table. Based on the data reported, the amount and percent of annual salary derived from clinical service

was calculated. Lastly, for those personnel who received earnings through their clinical service in addition to their regular salary, a gross salary (combining program and clinical sources) was calculated. Almost three-fourths (71%) of the program personnel that were credentialed as P.A.'s had clinical responsibilities, in addition to their program activities. This proportion varied across the three categories and was greatest for those in category III (90%). Thirty-eight percent of program directors (P.A.'s) also had clinical responsibilities.

Table 15. General Characteristics of Clinically Active Physician Assistant Personnel

<u>Characteristic</u>	<u>P.A. Personnel Category</u>			<u>Program Directors</u> N=103	<u>Total</u> N=506
	<u>I</u> N=209	<u>II</u> N=164	<u>III</u> N=30		
Clinical P.A.'s	173(83%)	122(74%)	27(90%)	39(38%)	361(71%)
<u>Hrs Worked/Week</u>					
Mean	11.9	12.0	10.8	7.6	11.4
(N)	(173)	(119)	(25)	(39)	356
Range	2-40	1-40	4-40	1-38	1-40
Number (%) Paid for Services	150(87%)	111(91%)	25(85%)	33(85%)	317(88%)
<u>Mean Wage/Hour</u>	\$36.31	\$35.38	\$38.52	\$39.08	\$36.43
(N)	(128)	(92)	(21)	(28)	(269)
<u>Annual Amount*</u>	\$20,740	\$20,379	\$19,969	\$14,256	\$19,934
<u>Adjust. Salary**</u>	\$71,655	\$64,973	\$65,882	\$79,651	\$69,012
<u>% Salary From Clinical Earnings</u>	28.9%	31.4%	30.3%	17.9%	28.9%

* Estimated at 48 weeks per year.

** Base Salary + Clinical Earnings for those clinically active.

On average, P.A.'s in Categories I-III spent 11.4 hours per week providing patient care; program directors who were P.A.'s spent an average of 7.6 hours per week. The range in time spent was very broad, from one hour per week to 40 hours per week. Eighty-eight percent of P.A. personnel received additional compensation for their clinical services. The mean hourly wage averaged \$36.43/hour and varied from \$35.38 for Category II to \$39.08 per hour for program directors.

Given the mean number of hours worked per week, the average hourly wage and, assuming an average of 48 weeks were worked per year, the annual earnings from patient care services of the P.A.'s with clinical responsibility was estimated. On average, these individuals earned \$19,934 from their clinical activity. Program directors had the lowest additional income (\$14,256) and those in Category I had the highest (\$20,740).

An "adjusted" annual income (base salary + clinical earnings) was determined for those indicating they received earnings from both sources. On average, there was a 16.2% increase over base salary for those personnel that were clinically active. And, clinical earnings accounted for over one-fourth of the personnel salary. It would appear that the base salary for clinically active personnel is lower than those not in practice. In subsequent tables, salary figures will not include clinical earnings.

General characteristics of non-P.A. credentialed personnel by category is shown in Table 16. Across categories, the typical non-P.A. in Categories I - III devoted 90% of their time to the program; the majority were classified as full-time employees.

Table 16. General Characteristics of Non-P.A. Personnel

Characteristic	Personnel Category				Total (Cat. I - III)
	I	II	III	IV	
	<u>N = 64</u>	<u>N = 15</u>	<u>N = 36</u>	<u>N = 203</u>	<u>N = 115</u>
Mean % Time	86.0%	92.9%	96.3%	96.5%	90.1%
<u>Annual Salary*</u>	<u>N = 51</u>	<u>N = 11</u>	<u>N = 33</u>	<u>N = 187</u>	<u>N = 95</u>
Mean	\$53,878	\$52,244	\$45,311	\$27,837	\$50,713
Median	\$57,300	\$44,900	\$40,860	\$27,000	\$47,500
Range	\$28,112- \$82,344	\$27,600- \$100,000	\$18,500- \$137,960	\$10,062 - \$62,000	\$18,500- \$137,960
<u>Months in Position</u>	<u>N = 59</u>	<u>N = 15</u>	<u>N = 35</u>	<u>N = 193</u>	<u>N = 109</u>
Mean	65.0	29.9	94.2	53.1	69.5
Median	40.0	31.0	48.0	26.0	40.0
Range	2 - 312	1 - 96	4 - 338	1 - 432	1 - 432

* Salaries adjusted to 1 FTE

The mean salary for non-P.A.'s across Categories I - III was \$50,713, ranging from \$18,500 to \$137,960. On average, these individuals had been employed 69.5 months (median of 40, range of 1-432 months). Non-P.A.'s in Category I earned the highest average salary (\$53,878). Non-P.A.'s in Category III had the lowest average salary (\$45,311). Category II non-P.A.'s had been associated with the program for the shortest period of time, while Category III non-P.A.'s, on average, had been employed almost three times as long. Overall, non-P.A.'s had a lower average annual salary than did personnel who were P.A.'s. Category IV personnel had a mean salary of \$27,837 with a broad range of \$10,062 to \$62,000. Category IV personnel had been in their position an average of 53.1 months (median: 26 months).

Characteristics of program personnel in Categories I - III, by ethnicity and gender, are shown in Table 17. It should be noted that data on P.A. and non-P.A. program personnel were combined for the analyses in Tables 17 and 21.

Table 17. Salary and Months in Position of Category I - III P.A. and Non-P.A. Personnel by Ethnicity and Sex

Ethnicity	Number of Personnel			Mean Annual Salary		Mean Months in Position	
	Male	Female	Total	Male	Female	Male	Female
White/Non-Hisp.	161	279	440	\$64,430	\$57,989	61.5	54.7
Black/African-Amer.	19	25	44	\$53,237	\$56,316	29.4	48.5
Latin/Hisp/Mex. Am.	10	8	18	\$58,835	\$55,332	67.9	36.0
Asian	3	7	10	\$72,033	\$56,609	37.0	68.6
Asian Subpopulation	0	0	0	-----	-----	-----	-----
Native Haw./Other PI	1	1	2	-----	-----	-----	-----
Amer. Ind./Alaskan	0	0	0	-----	-----	-----	-----
Other	<u>1</u>	<u>0</u>	<u>1</u>	-----	-----	-----	-----
Total	195	320	515	\$63,076	\$57,673	58.0	53.9

Proportionately, there were more women (62%) among the P.A. and non-P.A. personnel; 63% of the white (279/440) and 55% of the non-white personnel (41/75) were women. In total, 75 P.A. program staff and/or faculty from 50 programs were identified as members of an ethnic minority (44 Black/African-American, 18 Latino/Hispanic, 10 Asian, two Native Hawaiian/Other Pacific Islander, and one Other). This constitutes 15% (75/515) of the total number of faculty and staff and 49% of the programs responding. In all categories except Black/African-American, males earned higher annual salaries than their female counterparts where comparisons were possible. Black/African-American and Asian Females were employed longer in their current position than males.

Characteristics of program personnel in Category IV, by ethnicity and gender, are shown in Table 18. Category IV personnel consisted mainly of females (93.4%). Fifty (25%) Category IV P.A. program staff from 28 programs were identified as members of an ethnic minority. Females were employed longer in their current position than males, 56 and 25 months, respectively.

Table 18. Salary and Months in Position of Category IV Personnel by Ethnicity and Sex

Ethnicity	Number of Personnel			Mean Annual Salary		Mean Months in Position	
	Male	Female	Total	Male	Female	Male	Female
White/Non-Hisp.	12	136	148	\$31,483	\$27,547	27.2	58.6
Black/African-Amer.	0	25	25	-----	\$27,796	-----	45.6
Latin/Hisp/Mex. Am.	0	17	17	-----	\$28,298	-----	68.4
Asian	1	6	7	-----	\$29,801	-----	29.8
Asian Subpopulation	0	0	0	-----	-----	-----	-----
Native Haw./Other PI	0	1	1	-----	-----	-----	-----
Amer. Ind./Alaskan	0	0	0	-----	-----	-----	-----
Total	13	185	198	\$31,215	\$27,812	25.3	56.3

The relationship between salary, percent time, and months in position for P.A. and non-P.A. personnel by sex is shown in Table 19.

Table 19. Analysis of Salary, Percent Time and Months in Position of P.A. and Non-P.A. Personnel by Sex

Categories	Mean Annual Salary				Mean % Time				Mean Months in Position			
	Male	N	Female	N	Male	N	Female	N	Male	N	Female	N
Cat. I												
P.A.	\$63,010	70	\$59,148	115	91.3	75	88.8	132	50.5	72	47.5	126
Non-P.A.	\$57,352	21	\$51,445	30	84.1	28	87.4	35	55.5	26	72.5	33
Cat. II												
P.A.	\$63,049	63	\$61,583	83	92.7	66	89.5	98	53.0	62	47.6	97
Non-P.A.	\$75,250	4	\$37,281	6	90.7	6	93.8	8	31.8	6	32.0	8
Cat. III												
P.A.	\$71,607	8	\$71,160	19	99.1	11	89.5	19	92.4	11	86.4	19
Non-P.A.	\$63,901	8	\$39,362	25	98.1	8	95.7	28	149.1	7	66.2	28
Cat. IV												
Non-P.A.	\$31,215	13	\$27,584	174	88.5	13	97.1	190	25.3	13	55.1	180
Cat. I - III												
P.A.	\$63,515	141	\$61,131	217	92.5	152	89.1	249	54.7	145	50.6	242
Non-P.A.	\$61,109	33	\$45,100	61	87.7	42	91.4	71	68.7	39	65.2	69

Male personnel earned higher annual salaries than female personnel. On average for Categories I - III, non-P.A. personnel had been in their positions substantially longer than P.A. personnel.

Personnel by Region: Salary, Months in Position and Ethnicity

Data regarding salary and time in position for P.A. and non-P.A. personnel by consortia region is presented in Table 20. P.A.'s associated with programs located in the Heartland region reported the highest annual salaries. The lowest mean P.A. salary was in the Eastern region. Non-P.A.'s in the Heartland region had the highest salaries, while those in the Midwestern region had the lowest salaries. P.A.'s salaries were higher than Non-P.A.'s in each region. Non-P.A.'s were employed for more months. There was not a statistically significant correlation ($r = 0.361$; $p > .05$) between time in position and salary.

Table 20. Program Personnel: Salary and Time in Position by Region

Consortia Region	Mean Salary: Categories I - III				Months in Position	
	P.A.	N	Non-P.A.	N	P.A.	Non-P.A.
Northeastern	\$62,632	69	\$56,305	7	49.4	54.1
Eastern	\$58,219	53	\$54,463	9	48.6	53.1
Southeastern	\$62,505	57	\$49,221	14	60.2	70.2
Midwestern	\$61,908	63	\$45,152	19	46.2	46.1
Heartland	\$63,814	43	\$60,702	12	54.2	118.8
Western	\$63,080	74	\$48,847	32	55.5	68.6
Total	\$62,110	359	\$50,720	93	52.0	65.9

The salaries of Category I - III P.A. program personnel (P.A.'s and non-P.A.'s) by ethnicity and consortia region are shown in Table 21. Mean salaries of White personnel were higher than their Black/African-American counterparts in each region, except the Western. Latino/Hispanic personnel had higher average salaries than Black/African-Americans.

Table 21. Analysis of Program Personnel by Consortia Region and Ethnicity
Category I - III

Consortia Region	Mean Annual Salary					
	White	N	Black/ African-Amer	N	Lat/Hisp	N
Northeastern	\$62,660	62	\$60,709	11	\$65,500	2
Eastern	\$58,204	54	\$53,063	6	-----	1
Southeastern	\$61,076	60	\$52,929	10	-----	1
Midwestern	\$59,564	73	\$43,225	5	-----	1
Heartland	\$63,166	49	-----	0	\$54,767	3
Western	\$58,793	90	\$62,400	4	\$57,736	8
Total	\$60,379	388	\$56,605	36	\$57,521	16

The salaries of Category IV P.A. program personnel (P.A.'s and non-P.A.'s) by ethnicity and consortia region are shown in Table 22 (next page). Mean salaries of Black/African-American personnel were higher than their White counterparts in three of the five regions where comparisons could be made.

Table 22. Analysis of Program Personnel by Consortia Region and Ethnicity Category IV

Consortia Region	Mean Annual Salary					
	White	N	Black/African- American	N	Lat/Hisp	N
Northeastern	\$28,476	30	\$29,977	9	-----	1
Eastern	\$27,329	9	\$25,662	5	-----	0
Southeastern	\$23,297	18	\$30,000	2	-----	0
Midwestern	\$25,939	30	\$27,250	2	-----	1
Heartland	\$26,825	17	-----	0	\$22,567	3
Western	\$32,205	34	\$25,749	6	\$30,327	10
Total	\$27,890	138	\$27,796	24	\$29,265	15

Trends in P.A. Program Personnel Salaries from 1986 Through 2001

Trends in P.A. personnel salary from 1986 through 2001 are shown in Table 23. Note, salary data was not available for 1987-88. There has been a 115% increase in P.A. salaries (all categories combined) from 1985-86 to 2001-2002, an average of 5.3% per year. Proportionately, the largest annual increase in salary (10.9%) for all categories occurred between 1989 and 1990.

Table 23. Salary and Months in Position for P.A. Personnel, 1985 Through 2001

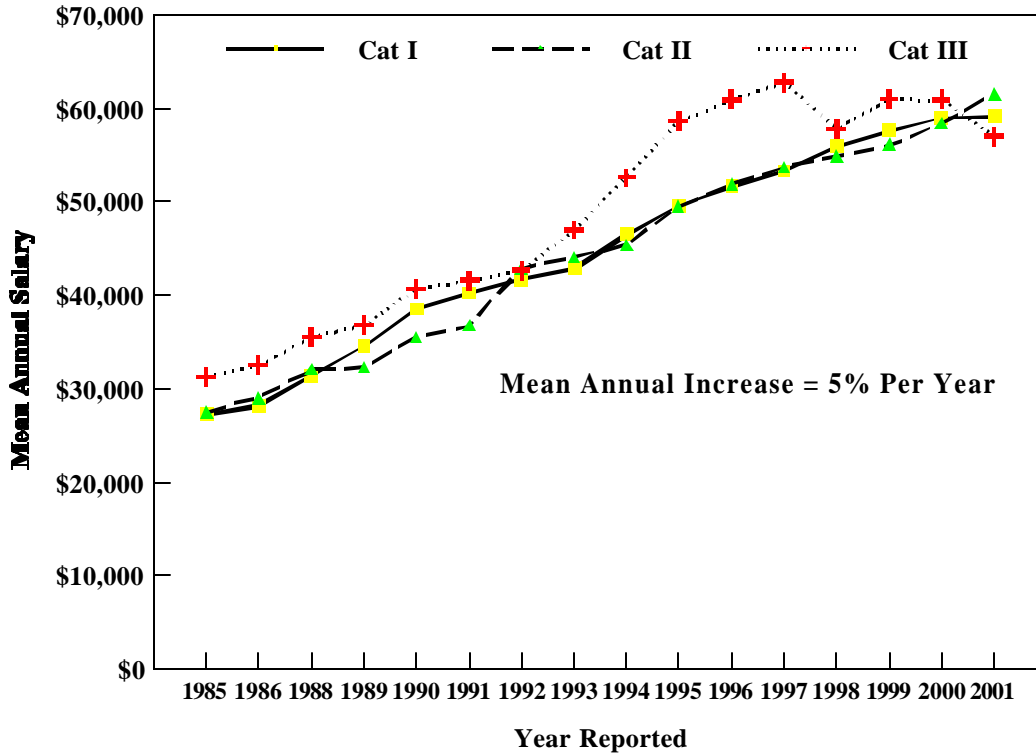
Categories	Cat. I	Cat. II	Cat. III	All Cat.	Months in Position
1985-86	\$27,264	\$27,553	\$31,298	\$27,769	36.6
1986-87	\$28,129	\$29,060	\$32,451	\$29,010	36.3
1988-89	\$31,362	\$32,054	\$35,547	\$32,099	39.9
1989-90	\$34,610	\$32,300	\$36,756	\$33,723	43.9
1990-91	\$38,547	\$35,578	\$40,661	\$37,404	40.1
1991-92	\$40,280	\$36,807	\$41,552	\$39,192	51.4
1992-93	\$41,689	\$42,885	\$42,719	\$42,471	42.0
1993-94	\$42,945	\$44,127	\$47,038	\$43,956	41.6
1994-95	\$46,498	\$45,357	\$52,578	\$46,549	42.5
1995-96	\$49,510	\$49,589	\$58,720	\$50,469	39.0
1996-97	\$51,662	\$51,906	\$60,973	\$52,550	41.6
1997-98	\$53,314	\$53,730	\$62,849	\$54,164	38.9
1998-99	\$55,964	\$54,943	\$57,878	\$55,729	46.5
1999-00	\$57,687	\$56,164	\$61,033	\$56,539	44.3
2000-01	\$59,013	\$58,556	\$60,973	\$59,108	54.8
2001-02	\$59,208	\$61,568	\$57,003	\$59,757	55.1

Months in position did not vary substantially, averaging 43.4 months over the 16-year period (range of 36.3 to 55.1).

A three-way analysis of variance (ANOVA) of salary was conducted to investigate the effects of the following parameters: personnel category, gender and consortia region. Main effects were found for sex (F=18.47; p<0.01; men higher than women) and consortia region (F=21.43; p<0.001). The category of personnel demonstrated no significant main effects. No significant interactions were found. Taken together, category, gender and region accounted for 22.6% of the variance in salaries (r=0.475).

Trends in salary for all categories of program personnel (data for P.A.'s and non-P.A.'s were combined) from 1985 through 2001 are illustrated in Figure 7. Salaries for personnel in Cat I and II consistently increased each year with the largest increase occurring in 1990. Since 1997, Cat III salaries have decreased by 9.3%.

Figure 7. Trends in P.A. Program Salaries: 1985 Through 2001



Program Personnel: Academic Classification

The number of Category I - III personnel (P.A.'s and non-P.A.'s) classified as faculty and staff, as well as the tenure track status of those in faculty positions, are shown in Table 24.

Table 24. Program Personnel: Classification and Tenure Track Status

	Personnel Category						Total	
	I		II		III		Number	(%)
<u>Classification</u>	<u>Number</u>	<u>(%)</u>	<u>Number</u>	<u>(%)</u>	<u>Number</u>	<u>(%)</u>	<u>Number</u>	<u>(%)</u>
Faculty	239	91.2%	146	82.0%	36	54.5%	421	83.0%
Staff	24	8.8%	32	18.0%	30	45.5%	86	17.0%
<u>Tenure Status</u>								
In Tenure Track*	82	34.3%	26	17.8%	13	36.1%	121	28.7%
Faculty Tenured**	16	6.7%	3	2.1%	7	19.4%	26	6.2%

* Percent of TOTAL faculty in tenure track not tenured.

** Percent of TOTAL faculty tenured (e.g., 26/421 = 6.2%)

For all categories combined, more than three fourths (N=421; 83%) of personnel were classified as faculty. This distribution of individuals classified as faculty varied greatly between 54.5% for Category III and 91.2% for Category I. Category III includes typically administrative-type personnel who may be less likely to be appointed to an academic level position.

Overall, more than one-fourth (28.7%) of the faculty were on the tenure track. However, only 6.2% of the faculty were tenured. Viewed in another way, 21.5% of those faculty in a tenure track were tenured, with the highest proportion of these tenured faculty in Category III (53.8%).

Table 25 shows the academic classification and tenure status of Category I - III personnel by gender. The proportion of men holding faculty rank was higher than the proportion of women (88% versus 80%, respectively). A larger proportion of male faculty were on tenure track compared to female faculty, 31.4% versus 27.0%, respectively. Although very few faculty were tenured (6.2%), more male faculty were tenured (7.1%) as compared to female faculty (5.6%).

Table 25. Program Personnel: Classification and Tenure Track Status by Gender

Personnel Classification	Female		Male		Total	
	Number	(%)	Number	(%)	Number	(%)
Faculty Appointment	252	80.0%	169	88.0%	421	83.0%
Staff Appointment	63	20.0%	23	12.0%	86	17.0%
Tenure Status						
Tenure Track Faculty	68	27.0%	53	31.4%	121	28.7%
Tenured Faculty*	14	5.6%	12	7.1%	26	6.2%

* Percent of TOTAL faculty tenured.

A summary of the highest degree held by each category of program personnel is shown in Table 26. All but 2% of Category I - III program personnel were reported to have earned a bachelors or higher degree. Less than one-third of the P.A. and non-P.A. personnel held a baccalaureate degree (29%) as their highest degree. Over one-half of the personnel held a master's degree (N=293; 58.6%). Fifty-three individuals (10.6%) were identified as having earned a doctorate. Proportionately, Category I and III personnel tended to have more doctorate degrees than those in Category II.

Table 26. Program Personnel: Highest Degree Held

Highest Degree	Program Personnel Categories								Categories I - III	
	#	I (%)	#	II (%)	#	III (%)	#	IV (%)	#	(%)
Doctorate	35	13.2%	7	4.0%	11	18.6%	1	1.4%	53	10.6%
Masters	171	64.5%	88	50.0%	34	57.6%	9	12.7%	293	58.6%
Bachelors	57	21.5%	75	42.6%	12	20.3%	45	63.4%	144	28.8%
Associate	2	0.8%	6	3.4%	2	3.4%	16	22.5%	10	2.0%
Total	265	100.0%	176	100.0%	59	100.0%	71	100.0%	500	100.0%

The number and academic rank of program faculty, by category, are shown in Table 27. Over half of the P.A. and non-P.A. faculty hold the academic rank of assistant professor (N=208; 51.6%).

Table 27. Program Personnel: Academic Rank of Faculty

Academic Rank	Program Personnel Categories						Total	
	I		II		III		N	(%)
	<u>N</u>	<u>(%)</u>	<u>N</u>	<u>(%)</u>	<u>N</u>	<u>(%)</u>	<u>N</u>	<u>(%)</u>
Full Professor	5	2.1%	0	0.0%	3	8.6%	8	2.0%
Associate Prof.	24	10.1%	8	6.2%	9	25.7%	41	10.2%
Assistant Prof.	126	52.9%	67	51.5%	15	42.9%	208	51.6%
Instructor/Lect.	<u>83</u>	<u>34.9%</u>	<u>55</u>	<u>42.3%</u>	<u>8</u>	<u>22.9%</u>	<u>146</u>	<u>36.2%</u>
Total	238	100.0%	130	100.0%	35	100.0%	403	100.0%

P.A. and Non-P.A. Personnel Salary Analysis

Salaries for Category I - III P.A. and non-P.A. program personnel by academic classification are shown in Table 28. The mean annual salary of faculty-level personnel was \$62,448 (N=368), 31% higher than those appointed to staff positions (\$47,730; N=78). In general, the annual salaries of non-P.A. personnel with faculty rank (\$60,795, N=55) were lower than the salaries of P.A. personnel with faculty appointments (\$62,738; N=313). Faculty salaries differed substantially between categories with Category III faculty earning the highest annual income.

Table 28. Faculty and Staff Salaries by Category

Classification	Program Personnel Categories							
	I		II		III		Categories I - III	
	<u>Mean</u>	<u>N</u>	<u>Mean</u>	<u>N</u>	<u>Mean</u>	<u>N</u>	<u>Mean</u>	<u>N</u>
<u>Faculty</u>								
P.A.	\$61,408	167	\$62,830	124	\$72,313	22	\$62,738	313
Non-P.A.	<u>\$58,058</u>	<u>40</u>	<u>\$70,200</u>	<u>5</u>	<u>\$67,041</u>	<u>10</u>	<u>\$60,795</u>	<u>55</u>
Total	\$60,761	207	\$63,116	129	\$70,666	32	\$62,448	368
<u>Staff</u>								
P.A.	\$53,477	16	\$58,214	21	\$66,803	5	\$57,432	42
Non-P.A.	<u>\$38,400</u>	<u>8</u>	<u>\$35,757</u>	<u>5</u>	<u>\$35,863</u>	<u>23</u>	<u>\$36,412</u>	<u>36</u>
Total	\$48,451	24	\$53,895	26	\$41,388	28	\$47,730	78

Among the personnel classified as staff, those that were P.A.'s earned a substantially higher (58%) salary (\$57,432) than non-P.A.'s (\$36,412). In comparison to the previous year (2000-2001), there was over a 2% increase in the faculty salaries and a 5.7% increase in staff salaries.

The relationship between salary and gender of P.A. and non-P.A. faculty and staff is summarized in Table 29 (next page). Salaries for male faculty were 4.5% higher than those of female faculty (\$64,139 versus \$61,336, respectively). Male staff earned substantially higher salaries than did female staff, \$56,806 vs. \$44,275, respectively.

Table 29. Program Personnel Salary of Faculty and Staff in Categories I - III by Gender

<u>Classification</u>	<u>Female</u>		<u>Male</u>	
	<u>Mean</u>	<u>N</u>	<u>Mean</u>	<u>N</u>
<u>Faculty</u>				
P.A.	\$61,880	191	\$64,081	122
Non-P.A.	\$57,336	26	\$64,393	28
Total	\$61,336	217	\$64,139	150
<u>Staff</u>				
P.A.	\$55,680	24	\$59,566	17
Non-P.A.	\$35,980	33	\$41,167	3
Total	\$44,275	57	\$56,806	20

Compared to the previous year (2000-2001), faculty salaries have increased 2.6% for females and 1.5% for males, while staff salaries decreased by less than 1% for males and increased by 4.2% for females.

Annual salary of program personnel by highest degree earned for all categories is shown in Table 30. Doctoral-level personnel (N=43) earn the highest salary (overall for Categories I - III =\$63,208) and associate degree level individuals the lowest (\$53,015). Category II individuals earned more at the doctorate; Category I personnel with associate's degree earned the highest salary.

Table 30. Salary of Faculty and Staff Personnel by Highest Degree Held

<u>Highest Degree</u>	<u>Program Personnel Categories</u>									
	<u>I</u>		<u>II</u>		<u>III</u>		<u>IV</u>		<u>Categories I - III</u>	
	<u>Mean</u>	<u>N</u>	<u>Mean</u>	<u>N</u>	<u>Mean</u>	<u>N</u>	<u>Mean</u>	<u>N</u>	<u>Mean</u>	<u>N</u>
Doctorate	\$63,103	27	\$66,214	7	\$61,184	9	-----	1	\$63,208	43
Masters	\$59,721	149	\$63,781	81	\$67,488	31	\$35,466	9	\$61,904	261
Bachelors	\$56,130	55	\$58,884	62	\$42,344	12	\$29,522	41	\$56,171	129
Associate	\$72,503	2	\$51,979	6	\$36,634	2	\$28,542	16	\$53,015	10
Not Reported	\$39,641	3	\$67,638	2	\$32,665	6	\$26,642	116	\$40,926	11
Total	\$59,124	236	\$61,568	158	\$57,002	60	\$27,917	183	\$59,694	454

The salary of personnel classified as faculty is shown by academic rank and category in Table 31 (next page). Overall, there was an increase in mean salary with higher academic rank. The range of mean salaries was broad, \$56,838 at the rank of instructor in Category I to \$79,576 for those at the associate professor level in Category III.

Table 31. Salary of Program Faculty by Academic Rank and Category

	I		II		III		Total	
<u>Academic Rank</u>	<u>Mean</u>	<u>N</u>	<u>Mean</u>	<u>N</u>	<u>Mean</u>	<u>N</u>	<u>Mean</u>	<u>N</u>
Full Professor	\$71,529	3	-----	0	-----	1	\$71,732	4
Associate Prof.	\$67,611	18	\$65,700	8	\$79,576	9	\$70,251	35
Assistant Prof.	\$61,713	107	\$65,315	63	\$66,562	13	\$63,297	183
Instructor/Lect.	\$56,838	79	\$60,438	44	\$64,152	8	\$58,492	131
Not Reported	<u>\$50,532</u>	<u>31</u>	<u>\$56,466</u>	<u>43</u>	<u>\$43,218</u>	<u>29</u>	<u>\$50,950</u>	<u>103</u>
Total	\$59,208	238	\$61,568	158	\$57,003	60	\$59,736	456

Program Directors of Physician Assistant Programs

The general characteristics of program directors are shown in Table 32 and include percent of time, annual salary and months in position for P.A. and non-P.A. directors by gender and highest degree held. On average, program directors devoted 96.5% of their time to program-related activities. While the percentage of time ranged from 50% to 100%, the majority of the directors (N=90; 87%) were working full-time. Seventy-three percent of the directors were P.A.'s (N=75).

Table 32. Characteristics of Program Directors

<u>Characteristics</u>	<u>Mean</u>	<u>S.D.</u>	<u>Range</u>	<u>N</u>		
Percent Time	96.5%	16.9	50% - 100%	103		
<u>Annual Salary</u>	<u>\$83,771</u>	<u>\$14,938</u>	<u>\$ 50,000 - 124,681</u>	<u>91</u>		
P.A.	\$83,954	\$14,891	\$ 50,000 - 124,681	75		
Non-P.A.	\$82,912	\$15,128	\$ 59,200 - 109,612	16		
Male	\$86,872	\$14,983	\$ 53,733 - 124,681	54		
Female	\$79,245	\$13,664	\$ 50,000 - 101,000	37		
Doctorate	\$87,672	\$15,475	\$ 53,733 - 124,681	34		
Masters	\$81,072	\$14,345	\$ 50,000 - 120,000	52		
Bachelors	\$74,500	\$ 5,500	\$ 69,000 - 80,000	2		
<u>Months in Position</u>	<u>75.81</u>	<u>80.59</u>	<u>4-366</u>	<u>100</u>		
P.A.	74.48	75.13	4-332	81		
Non-P.A.	81.47	100.40	6-366	19		
Male	64.61	67.03	4-332	57		
Female	90.65	93.61	6-366	43		
<u>Highest Degree Held</u>	<u>Female</u>	<u>%</u>	<u>Male</u>	<u>%</u>	<u>Total</u>	<u>%</u>
Doctorate*	13	35.1%	24	64.9%	37	37.4%
Masters	31	51.7%	29	48.3%	60	60.6%
Baccalaureate	1	50.0%	1	50.0%	2	2.0%

* Includes Ph.D., Ed.D., J.D., Pharm.D. and M.D. Degrees

The mean average salary for program directors was \$83,771, ranging from \$50,000 to \$124,681. Program directors who were P.A.'s earned a similar salary in comparison to those who were non-P.A.'s (\$83,954 and \$82,912, respectively). The average months in position varied from 74 months for physician assistant to 81 months for non-physician assistant. The median months in position was 51 months.

Male program directors had higher average salaries (\$86,872) than did female directors (\$79,245). The mean time in position of female directors exceeded that of male directors by almost two years (91 versus 65 months, respectively). The median number of months in position for male and female program directors is 30 and 45 respectively. In comparison to the 2000-2001 data, mean salaries increased by 4.9% (\$83,771 versus \$79,878).

Program Director Salaries: Regional Differences

A summary of program directors' salary and months in position by consortia region is shown in Table 33. Program directors associated with programs located in the Northeastern region had lower mean salaries (\$79,742) compared with the rest of the United States. Directors in the Western region had the highest mean salaries (\$88,097). The lowest individual salary for a program director was in the Northeastern region (\$50,000) and the highest was in the Midwestern region (\$124,681). Program directors in the Northeastern region had been employed in their positions the longest time, almost eight years (93.5 months), and those in the Midwestern region the shortest period of time (62.2 months). Please note that the median months in position are listed on the table.

Table 33. Salary and Months in Position of Program Directors by Region

<u>Consortia Region</u>	<u>Program Director Salary</u>			<u>Months in Position</u>			
	<u>N</u>	<u>Mean</u>	<u>Range</u>	<u>N</u>	<u>Mean</u>	<u>Median</u>	<u>Range</u>
Northeastern	19	\$ 79,742	\$50,000- 99,592	23	93.5	51.0	4-366
Eastern	12	\$ 80,569	\$62,325- 120,000	15	73.5	54.0	6-292
Southeastern	15	\$ 85,319	\$56,702- 120,000	16	75.3	50.5	6-220
Midwestern	20	\$ 84,257	\$59,200- 124,681	21	62.2	60.0	6-126
Heartland	10	\$ 85,484	\$72,672- 101,400	11	66.8	31.0	11-312
Western	15	\$ 88,097	\$53,733- 109,612	14	77.1	42.0	4-348
Total	91	\$ 83,771	\$50,000-124,681	100	75.8	51.0	4-366

Medical Directors of Physician Assistant Programs

The characteristics of P.A. program medical directors are shown in Table 34. Percent time data were available for 98 medical directors, of which nine were employed as such on a full-time basis, the remainder, on average, devoted less than one-quarter (24.1%) of their time to program-related activities. The mean annual salary of the medical directors reporting (N=81) was \$104,355 but varied extensively, ranging from \$25,000 to \$200,000. Male medical directors (N=62) earned a higher annual mean salary (\$107,684) than did female medical directors (\$93,494).

Table 34. Characteristics of Program Medical Directors

	<u>Mean</u>	<u>S.D.</u>	<u>Median</u>	<u>Range</u>	<u>N</u>
<u>Percent Time</u>	36.1	32.7	20.0	5%-100%	98
<u>Annual Salary</u>	\$104,355	\$45,170	\$106,550	\$25,000-200,000	81
Female	\$ 93,494	\$41,373	\$ 94,707	\$32,000-156,100	19
Male	\$107,684	\$45,759	\$106,925	\$25,000-200,000	62
<u>Months in Position</u>	65.1	65.3	40.0	1-361	95
Female	68.2	70.3	54.0	2-361	26
Male	64.0	63.2	40.0	1-276	69

Overall, medical director salaries decreased by 3.9% from the previous year. Respondents which originally had not made corrections for full-time equivalent were contacted in order to clarify figures. The majority of medical directors were male (62; 76.5%). The average months in position is lower for male directors (64 months).

Data concerning medical director salaries, months in position and consortia region are shown in Table 35. Medical directors of those programs in the Western region had the highest mean salaries (\$111,362). Those directors in the Eastern had the lowest salaries (\$91,958). The Midwestern region had the highest median salaries (\$107,770). Medical directors in the Eastern region were in their positions for the longest period of time (88.4 months). It should be noted that the range in both salaries (range of \$25,000 to \$200,000) and months in position (from 1 to 361 months) was extensive. Please note that the mean months in position differ significantly from the median months in position.

Table 35. Salary and Months in Position of Medical Directors by Region

<u>Consortia Region</u>	<u>Medical Director's Salary*</u>				<u>Months in Position</u>			
	<u>N</u>	<u>Mean</u>	<u>Median</u>	<u>Range</u>	<u>N</u>	<u>Mean</u>	<u>Median</u>	<u>Range</u>
Northeastern	15	\$ 98,940	\$ 90,000	\$25,000-200,000	20	72.5	58.0	4-276
Eastern	12	\$ 91,958	\$ 80,000	\$35,000-170,000	14	88.4	64.0	1-239
Southeastern	13	\$109,192	\$114,044	\$30,000-150,000	15	47.4	39.0	7-133
Midwestern	17	\$105,950	\$107,770	\$25,000-180,000	21	55.5	53.0	2-144
Heartland	9	\$108,235	\$100,000	\$50,000-200,000	11	50.0	31.0	18-100
Western	<u>15</u>	<u>\$111,362</u>	<u>\$106,550</u>	<u>\$49,000-175,000</u>	<u>14</u>	<u>76.5</u>	<u>30.0</u>	<u>6-361</u>
Total	81	\$104,355	\$106,550	\$25,000-200,000	95	65.1	40.0	1-361

* Corrected for full-time equivalent.

The medical specialties of P.A. program medical directors are shown in Table 36. The majority of medical directors (N=65; 76.5%) were practicing in primary care specialties, predominantly family medicine (N=46; 54%) and internal medicine (N=15; 18%). Only twenty medical directors were in non-primary care specialties.

Table 36. Medical Specialties of P.A. Program Medical Directors

<u>Primary Care</u>			<u>Non-Primary Care</u>		
<u>Medical Specialty</u>	<u>N</u>	<u>(%)</u>	<u>Medical Specialty</u>	<u>N</u>	<u>(%)</u>
Family Medicine	46	54.1%	Cardiology	5	5.9%
Internal Medicine	15	17.6%	Emergency Med.	7	8.2%
Pediatrics	<u>4</u>	<u>6.2%</u>	General Surgery	2	2.4%
Total	65	76.5%	Psychiatry	1	1.2%
			Other	<u>5</u>	<u>5.9%</u>
			Total	20	23.5%

Comparisons between Medical and Program Directors

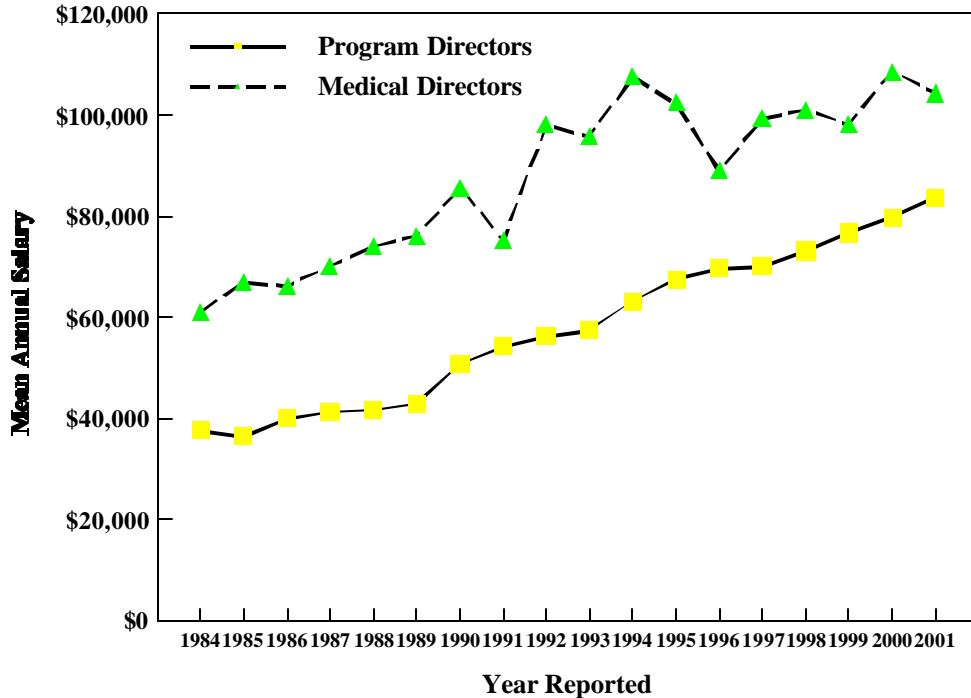
A comparison between medical and program directors' salaries from 1984-85 through 2001-2002 is shown in Table 37 (next page). Note, information concerning the characteristics of medical directors was not available in 1987-88. Between 1984 and 2001, there has been a 123% increase in the mean salary for program directors and a 71% increase for medical directors. The mean time in position has increased for program directors over this period (64.5 to 75.8 months). This year there was an increase in the months in position for programs and medical directors from last year.

Table 37. Trends in Directors' Salaries and Months in Position from 1984 Through 2001

Academic Year	Program Director			Medical Director		
	Mean	Months	N	Mean	Months	N
1984-1985	\$37,499	64.5	31	\$ 61,000	69.1	23
1985-1986	\$36,491	69.3	32	\$ 66,900	70.1	21
1986-1987	\$39,939	68.8	38	\$ 66,300	63.9	29
1987-1988	\$41,324	67.9	38	N/A		
1988-1989	\$41,730	90.3	42	\$ 74,056	75.3	36
1989-1990	\$42,800	88.8	36	\$ 76,168	78.8	32
1990-1991	\$50,824	85.5	41	\$ 85,646	69.1	36
1991-1992	\$54,266	98.9	38	\$ 75,071	72.3	39
1992-1993	\$56,206	91.4	51	\$ 98,288	69.3	39
1993-1994	\$57,241	85.2	50	\$ 95,882	53.8	33
1994-1995	\$63,115	89.9	55	\$107,617	67.3	32
1995-1996	\$67,437	88.0	67	\$102,509	61.7	55
1996-1997	\$69,808	91.7	72	\$ 89,186	64.5	55
1997-1998	\$70,031	68.3	90	\$ 99,372	54.8	75
1998-1999	\$73,048	73.6	80	\$101,066	62.5	62
1999-2000	\$76,709	70.3	88	\$ 98,214	62.2	71
2000-2001	\$79,878	75.6	88	\$108,575	64.0	72
2001-2002	\$83,771	75.8	91	\$104,355	65.1	81
18-yr Mean	\$57,896	70.9	57	\$ 88,492	66.1	47

On average, in 2001, medical directors earned an annual salary approximately 25% higher than the typical program director (\$104,355 versus \$83,771). Over the eighteen-year period, the medical directors earned an annual salary of approximately 53% higher than the typical program director (\$88,492 versus \$57,896). Trends in salary for the program and medical directors from 1984 through 2001 are in Figure 8 and clearly illustrates the variation in directors' salaries since 1984.

Figure 8. Program and Medical Directors' Salaries: 1984 Through 2001



A comparison of academic position and tenure status between the directors is shown in Table 38. The majority of medical and program directors held faculty level positions with 12.5% of these directors classified as staff. More program directors than medical directors in faculty-level positions were on a tenure track and less than one-fourth of the faculty directors were tenured.

Table 38. Program and Medical Directors: Position and Tenure Track Status

<u>Level of Position</u>	<u>Program Director</u>		<u>Medical Director</u>	
	<u>Number</u>	<u>(%)</u>	<u>Number</u>	<u>(%)</u>
Staff Appointment	9	8.7%	16	16.5%
Faculty Appointment	94	91.3%	81	83.5%
Total	103	100.0%	97	100.0%
<u>Tenure Status</u>				
Tenure Track Faculty*	37	39.4%	23	28.4%
Faculty Tenured*	23	24.5%	10	12.3%

* Percent of TOTAL faculty tenured

Since 1985-86, the proportion of program and medical directors classified as faculty has remained relatively constant, averaging 83.3%; in 2001 around 87% of the directors were faculty. The proportion of faculty directors on the tenure track has averaged about 37% over time, and was 39% and 28%, respectively in 2001. The proportion of directors achieving tenured status in 2001 was lower than the mean of 20.6%.

A comparison between the academic rank of medical and program director faculty is shown in Table 39. The same percentage of program directors and medical directors (90.7% and 90.4% respectively) held professorial rank (Assistant to Full Professor).

Table 39. Program and Medical Directors: Academic Rank

<u>Academic Rank of Faculty</u>	<u>Program Director</u>		<u>Medical Director</u>	
	<u>Number</u>	<u>(%)</u>	<u>Number</u>	<u>(%)</u>
Full Professor	11	12.8%	13	18.1%
Associate Professor	32	37.2%	22	30.6%
Assistant Professor	35	40.7%	30	41.7%
Instructor/Lecturer	8	9.3%	7	9.7%
Total	86	100.0%	72	100.0%

Regression Analysis of Salaries

Linear regression analysis was used to describe the relationship between salary and months in position for all core program faculty and staff. The resulting regression equations provide a means of determining salary while correcting for months in position. Table 40 (next page) identifies regression equations for each of the four P.A. and non-P.A. personnel categories, and for program and medical directors.

Equations from Table 40 will "predict" salary within and across each category using the number of months as the independent variable. For example, one would predict that the salary of a Category I individual who has been in his or her position for 48.4 months would be around \$59,615 (i.e. \$58,962 + \$653), a value similar to that reported in Table 14 for the average Category I individual (i.e. \$60,662) having been employed for a mean of 48.4 months.

Table 40. Regression Equations for Salary and Months in Position for P.A. Program Personnel

<u>Characteristic</u>	<u>Base</u>	<u>+</u> (<u>Constant</u>	<u>x Months</u>)	<u>N</u>
Category I	\$ 58,962	+	(\$ 13.49 x _____)	230
Category II	\$ 59,624	+	(\$ 50.36 x _____)	153
Category III	\$ 48,323	+	(\$ 90.06 x _____)	59
Category IV	\$ 25,866	+	(\$ 36.51 x _____)	179
Categories I- III	\$ 57,247	+	(\$ 48.61 x _____)	442
Program Directors	\$ 81,291	+	(\$ 31.80 x _____)	89
Medical Directors	\$ 97,217	+	(\$128.06 x _____)	78

P.A. Program Personnel Turnover

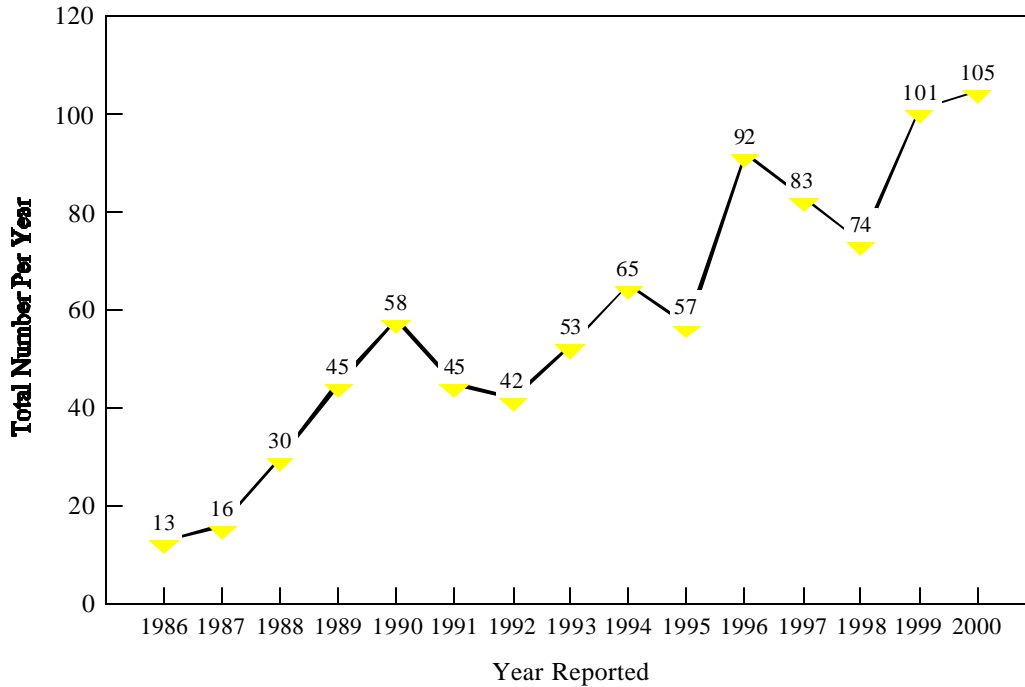
The 2001 survey requested updated information on personnel turnover for the period September 2000 through August 2001. Program respondents were asked to provide data on the type, frequency and characteristics of personnel terminating and those employed to fill the position. Reported herein is the turnover activity for 2000-2001 as well as the cumulative data for the fifteen-year period (1986-2000) in Table 41. Data are expressed as both total number and mean number of individuals per program for the time period identified. Over the fifteen year-period examined, respondents reported that 879 personnel left their positions, averaging 12.2/program. As shown in Figure 9 (next page), there has been an overall increase in turnover since 1986, with decreases in 1991, 1992, 1995, 1997 and 1998.

Table 41. Program Personnel Turnover 1986 Through 2000

<u>Academic Year</u>	<u>Total Number</u>	
	<u>Departing</u>	<u>Mean/Program</u>
1986-1987	13	0.3
1987-1988	16	0.3
1988-1989	30	0.6
1989-1990	45	0.9
1990-1991	58	1.2
1991-1992	45	0.8
1992-1993	42	0.8
1993-1994	53	0.9
1994-1995	65	0.9
1995-1996	57	0.7
1996-1997	92	1.0
1997-1998	83	0.9
1998-1999	74	0.7
1999-2000	101	1.1
2000-2001	<u>105</u>	<u>1.1</u>
15-year Total	879	12.2
15-year Mean	58.6	0.8

During the 2000-2001 academic year, 105 P.A. program personnel departed (N=100 programs reported information) for an average of 1.1 per program. In 2000, personnel turnover per program was almost twice the overall 15-year mean of 58.6 personnel departing per year, an average of 0.8 persons departing/program.

Figure 9. Trends in Personnel Turnover: 1986 Through 2000



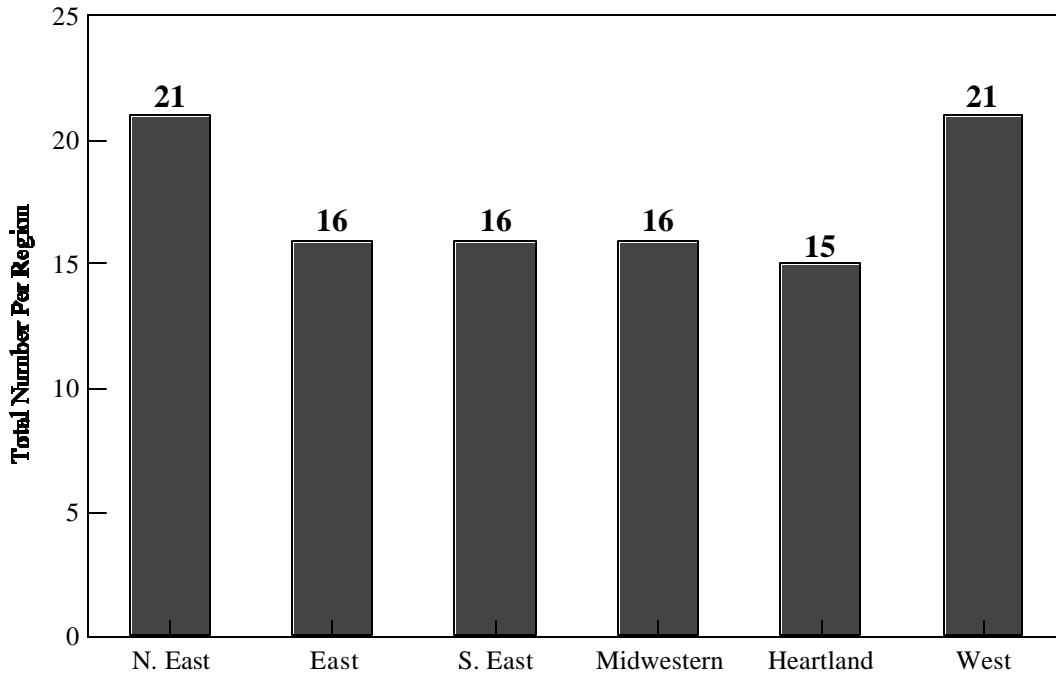
Our best estimate of the mean number of core program personnel is 9 per program, and includes one program and medical director, 3.8 P.A.'s and 1.1 non-P.A.'s and 2.3 Category IV personnel. Given the average turnover per year we estimate that 12% of program personnel departed this year (1.1/9).

The number of personnel (and mean/program) departing over the past fifteen years and those departing in 2000, by region, is shown in Table 42 and illustrated in Figure 10 (next page). Turnover varied by region. For example, programs in the Western region reported the highest turnover (1.50 per program) while programs in the Midwestern region had the lowest rate of turnover (0.76 per program).

Table 42. Program Personnel Turnover by Region, 1986 Through 2000

Consortia <u>Region</u>	Number <u>in 15 Years</u>	Number <u>in 2000</u>	2000 Mean/ <u>Program</u>	<u>N</u>
Northeastern	160	21	0.91	23
Eastern	118	16	1.07	15
Southeastern	138	16	1.00	16
Midwestern	167	16	0.76	21
Heartland	127	15	1.36	11
Western	<u>169</u>	<u>21</u>	<u>1.50</u>	<u>14</u>
Total	879	105	1.05	100

Figure 10. Personnel Turnover By Region: 2000-2001
 (From 9/1/2000 Through 8/31/2001)



A comparison of the number and category of personnel departing, those employed, percent of positions unfilled and mean number of weeks to fill the position are shown in Table 43. Overall, 105 program personnel (twenty-two Category IV) departed in 2000 with turnover highest among Category I personnel and least for Category III. On average 8.6 weeks were required to fill a position. Filling medical director positions averaged 3.7 weeks while 15.3 weeks were required to fill Category III positions.

Table 43. Comparison of Personnel Turnover in 2000 by Category

<u>Category</u>	<u>Number Departed</u>	<u>Number Employed</u>	<u>Percent Unfilled</u>	<u>Weeks to Fill Position</u>
I	36	28	22.2%	8.7
II	28	26	7.1%	8.7
III	6	4	33.3%	15.3
IV	22	14	36.4%	6.5
Program Director	8	6	25.0%	11.8
Medical Director	<u>5</u>	<u>4</u>	<u>20.0%</u>	<u>3.7</u>
Total	105	82	21.9%	8.6

Table 44 (next page) shows the characteristics of personnel departing and those employed. On average, personnel departed in 2000 were older (5.1 years) than those employed. A higher percentage of females were employed than departed. A higher percentage of non-white personnel were employed than departed.

Table 44. Characteristics of Personnel Departed and Employed in 2000
Program Personnel

Characteristic	Departed		Employed	
	(%)	N	(%)	N
Mean Age (yrs)		42.8		37.7
Range		26-65		20-60
<u>Gender</u>				
Male	43.8%	46	36.6%	30
Female	56.2%	59	63.4%	52
<u>Ethnicity</u>				
White	79.0%	83	85.4%	70
Non-White	21.0%	22	14.6%	12

The academic characteristics of personnel departing and those filling the vacated positions are shown in Table 45. Doctorate includes Ph.D., Ed.D. and M.D. As indicated in Table 45, the majority of personnel employed held a masters degree (46%) as their highest credential. Of those departing, 29 held a baccalaureate degree (31.9%) and 46 held a masters degree (50.5%). In addition, the majority of personnel departing were P.A.'s (69.5%) and those employed to fill these positions were also P.A.'s (77.5%).

Table 45. P.A. Program Personnel Turnover in 2000: Academic Characteristics

Highest Degree	Program Personnel			
	N	Departed (%)	N	Employed (%)
Associate/Certificate	6	6.6%	4	5.7%
Baccalaureate	29	31.9%	24	34.3%
Masters	46	50.5%	32	45.7%
Doctoral	10	11.0%	10	14.3%
P.A. Credentialed	73	69.5%	62	77.5%

The reasons cited for personnel turnover during 2000 and the fifteen-year totals, are shown in Table 46. In 2000, one-fourth (25%) of the individuals departing did so to return to clinical practice. Eleven cited career advancement as the reason for leaving their position. The "Other" category includes reasons such as unknown, travel, family and illness. Over the fifteen-year period, career advancement was the primary reason for departing followed by return to clinical practice and geographic relocation.

Table 46. P.A. Program Personnel Turnover:
Reasons for Termination in 2000 Compared to the Fifteen -Year Totals

Reasons for Terminating	2000		15-Year Totals	
	N	(%)	N	(%)
Career Advancement	11	13.8%	185	24.0%
Return to Clinical Practice	20	25.0%	137	17.8%
Geographic Relocation	4	5.0%	136	17.6%
Retired	6	7.5%	45	5.8%
Job Dissatisfaction	4	5.0%	37	4.8%
Termination	9	11.3%	34	4.4%
Returned to School	3	3.8%	33	4.3%
Salary Dissatisfaction	5	6.3%	28	3.6%
Family Obligations	5	6.3%	16	2.1%
Other	13	16.3%	120	15.6%
Total	80	100%	771	100.0%

A comparison of salaries and months in position between personnel departing and those employed is shown for each year in Table 47. On average, over the fifteen-year period, there has been a mean salary increase of 1.1% for newly employed individuals as compared to those departing.

Table 47. Salaries of Departing and Newly Employed Personnel,
1986 Through 2000

<u>Academic Year</u>	<u>N</u>	<u>Salary Departing</u>	<u>Months in Position</u>	<u>Salary New Employee</u>	<u>Months Prior Position</u>
1986-1987	13	\$30,868	41.3	\$30,000	35.0
1987-1988	16	\$30,900	73.1	\$33,500	57.4
1988-1989	30	\$33,000	43.5	\$34,000	38.1
1989-1990	45	\$34,000	41.8	\$38,000	55.5
1990-1991	58	\$38,200	22.7	\$40,000	52.3
1991-1992	45	\$38,960	39.4	\$38,450	47.2
1992-1993	40	\$44,748	48.1	\$43,151	54.7
1993-1994	46	\$43,857	31.5	\$44,667	52.3
1994-1995	58	\$44,118	48.4	\$45,536	45.3
1995-1996	43	\$46,771	35.0	\$51,127	39.6
1996-1997	78	\$47,523	48.9	\$51,533	46.6
1997-1998	75	\$48,926	42.0	\$53,366	45.7
1998-1999	64	\$51,402	46.4	\$55,479	40.1
1999-2000	94	\$48,523	42.1	\$47,899	26.5
2000-2001	79	\$53,881	46.0	\$49,997	36.0
15-Year Mean	683	\$44,368	41.4	\$44,844	45.3

The greatest salary differences between departing and newly employed personnel were in 1989-90 (11.8%) and 1995-96 (9.3%). Overall, personnel departing had been in their positions an average of 41 months, while those employed had been in their previous position four months longer (45 months).

SECTION III. P.A. APPLICANT AND STUDENT CHARACTERISTICS

Physician Assistant Student Enrollment

The maximum capacity and current enrollment of P.A. students in the most recently enrolled classes, 2001-2002 (first-year class), 2000-2001 (second-year class) and 1999-2000 (third-year class) are shown in Table 48. The proportion of maximum capacity that remained unfilled and the resident status of the students are also presented. The dates in parentheses indicate the academic year of admission and the number indicates the programs responding.

Table 48. Maximum Class Capacity and Current Enrollment in Physician Assistant Programs

		<u>Maximum Capacity</u>	<u>Current Enrollment</u>	<u>% Capacity Unfilled</u>	<u>% Residents</u>
<u>First-Year Class</u> (2001-2002)	Mean	40.1	39.2	6.2%	58.7%
	Median	35.0	35.0	4.0%	70.0%
	Range	(10-155)	(10-155)	(0-47%)	(0-100%)
	Number	105	105	105	105
<u>Second-Year Class</u> (2000-2001)	Mean	38.8	35.8	9.3%	58.0%
	Median	35.0	32.0	8.0%	66.7%
	Range	(10-173)	(10-173)	(0-53%)	(0-100%)
	Number	101	101	54	99
<u>Third-Year Class</u> (1999-2000)	Mean	30.9	29.1	19.8%	64.3%
	Median	30.0	30.5	20.0%	50.0%
	Range	(3-50)	(2-47)	(0-50%)	(0-100%)
	Number	18	18	18	18
<u>All Classes</u>	Mean	82.8	76.0	8.2%	59.5%
	Median	72.0	68.0	3.0%	59.6%
	Range	(20-328)	(12-328)	(0-70%)	(0-100%)
	Number	105	105	99	105

* Includes both full- and part-time students.

The mean maximum capacity for the first-year class remained about the same as last year (39.6) and is reported as 40.1; the mean maximum capacity for the second-year class decreased from last year (from 41.3 to 38.8); and the mean maximum capacity for the third-year class decreased from 39.1 to 30.9 students. The maximum capacity for all classes decreased by 3.7 students per program from last year. It should be noted that some of the programs with students in a “third year” were cases where there was a 1-6 month overlap between the second and third year of the curriculum (i.e., programs that were 25, 28, 30 months in length). It should also be noted that four of the newly established programs had not matriculated students to the second-year at the time data was collected.

The medians for the maximum capacity and current enrollment of the classes are listed on the table. Note that the medians are lower than the mean in every category except for one.

The percent of capacity unfilled for the first-year class was 6.2% and 9.3% for the senior class (the latter figure likely reflects factors like attrition during the previous year). Maximum capacity of P.A. programs varied extensively for both first- and second-year classes, ranging from 10 to 173. The maximum capacity for all classes

averaged 82.8 students and with a mean enrollment of 76.0 students, approximately 8.2% of the maximum capacity (all classes) remained unfilled.

Current enrollment in the first-year class averaged 39.2 students per program (105 programs; range 10 to 155) and 35.8 students/program in the second-year class. In comparison, the number of first- and second-year students in the previous year was 38.2 and 37.1, respectively. It should be noted that the enrollment figures include both full-time and part-time students, the latter accounting for only 2.7% of the enrollment. On average, approximately 59% of the students in the first-year and 58% of the second-year class were residents of the state in which the program was located.

The current enrollment for all classes by gender and full- and part-time student status is shown in Table 49. The majority of both full-time and part-time students were female, averaging around 67%. Eighteen programs reported that a "third-year class" was enrolled.

Table 49. Current Enrollment by Gender and Class-Year

	<u>1st Year Class (N=105)</u>			<u>2nd Year Class (N=101)</u>			<u>3rd Year Class (N=18)</u>		
<u>Full-Time</u>	<u>Mean</u>	<u>(%)</u>	<u>Range</u>	<u>Mean</u>	<u>(%)</u>	<u>Range</u>	<u>Mean</u>	<u>(%)</u>	<u>Range</u>
Male	12.5	31.9%	1-121	12.4	34.6%	2-125	10.0	34.4%	1-33
Female	<u>26.7</u>	<u>68.1%</u>	4- 98	<u>23.4</u>	<u>65.4%</u>	5- 60	<u>19.1</u>	<u>65.6%</u>	10-34
Total	39.2	100%		35.8	100%		29.1	100%	
	<u>1st Year Class (N=9)</u>			<u>2nd Year Class (N=2)</u>			<u>3rd Year Class (N=0)</u>		
<u>Part-Time</u>	<u>Mean</u>	<u>(%)</u>	<u>Range</u>	<u>Mean</u>	<u>(%)</u>	<u>Range</u>	<u>Mean</u>	<u>(%)</u>	<u>Range</u>
Male	4.9	39.2%	1-23	4.5	26.5%	4- 5	N/A	N/A	N/A
Female	<u>7.6</u>	<u>60.8%</u>	1-26	<u>12.5</u>	<u>73.5%</u>	7-18	N/A	N/A	N/A
Total	12.5	100%		17.2	100%				

It should be noted that respondents were asked to identify only those classes enrolled in the "professional" component of the curriculum, thus, a 4-year program may only have two years of "P.A.-specific" curriculum. Nine programs reported they enrolled part-time students in the first year; two programs also indicated they had part-time students in the second year of the program and no programs reported part-time students in the third-year.

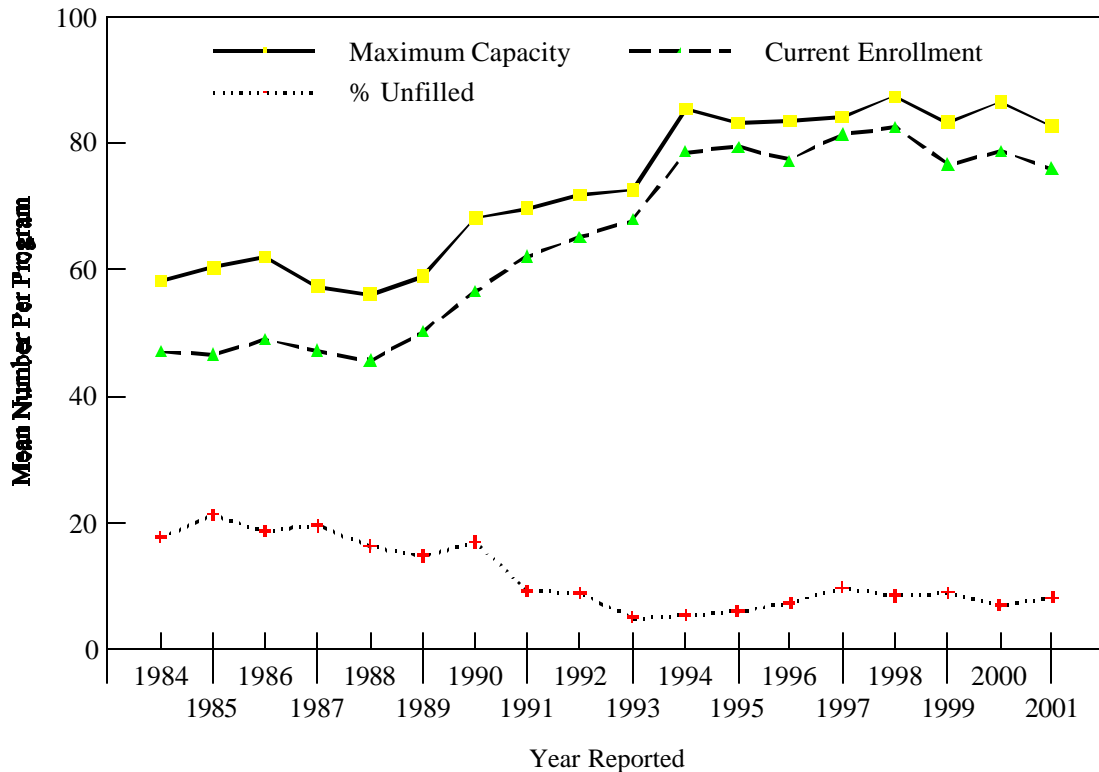
Trends in Maximum Capacity and Student Enrollment

The mean maximum class capacity, total student enrollment and percent of capacity unfilled from 1984 through 2001 are shown in Table 50 (next page). Maximum capacity over the past eighteen years averaged 73 students for all classes and ranged from 56.1 to 87.4. The percent of capacity that remained unfilled varied around a mean of 11.7%, however has remained below the mean since 1991. The trends in enrollment, maximum and unfilled capacity are illustrated in Figure 11 (next page). Total enrollment from 1984 through 1988 averaged 47.1 students/program and varied little during that period. In the subsequent thirteen years (1989-2001) enrollment averaged 71.7 and showed an overall increase of 64%, from 50.2 students to 82.5 students. This current year has seen a decrease in the current enrollment/program by 3.6%.

Table 50. Total Student Enrollment of All Classes, 1984 Through 2001

Academic Year	Programs Responding	Maximum Capacity All Classes	Current Enrollment All Classes	Percent Capacity Unfilled
1984-1985	39	58.2	47.0	17.8%
1985-1986	44	60.4	46.7	21.3%
1986-1987	47	61.9	49.1	18.8%
1987-1988	48	57.4	47.3	19.6%
1988-1989	48	56.1	45.6	16.3%
1989-1990	45	58.9	50.2	14.8%
1990-1991	50	68.1	56.6	16.9%
1991-1992	50	69.7	62.1	9.2%
1992-1993	57	71.8	65.1	8.9%
1993-1994	56	72.7	67.9	5.1%
1994-1995	61	85.4	78.6	5.5%
1995-1996	68	83.2	79.4	6.1%
1996-1997	77	83.6	77.3	7.3%
1997-1998	95	84.1	81.3	9.8%
1998-1999	96	87.4	82.5	8.5%
1999-2000	105	83.3	76.7	9.0%
2000-2001	102	86.5	78.8	7.1%
2001-2002	105	82.8	76.0	8.2%
18-Yr. Mean	66.4	72.9	65.0	11.7%

Figure 11. Trends in Enrollment: 1984 Through 2001



P.A. Applicants and Students Enrolled

The number of applicants and those enrolled in the most recent P.A. class (2001-2002) is shown in Table 51. In addition, information on those accepted and the mean number of full- and part-time students is also provided. The typical program received 166.0 applications for the class entering in 2001-2002, ranging from 20 to 450 applicants. This represented a 17.0% decrease (34 applicants/program) from the 200 applicants per program the previous year.

Table 51. Applicant and Student Characteristics, Class of 2001-2002

	Number	Number	Number Enrolled		
	<u>Applicants</u>	<u>Accepted</u>	<u>F.T.*</u>	<u>P.T.*</u>	<u>Total</u>
Mean	166.0	47.5	37.5	0.9	38.4
Median	150.0	40.0	33.5	0.0	34.0
Range	20-450	4-155	4-155	0-50	4-155
# Programs	79	98	105	105	105

* F.T. = Full-Time; P.T. = Part-Time

On average, 47.5 students were accepted and 38.4 students per program were enrolled in the first-year class (105 programs; range from 4-155); only 2.3% were part-time students (0.9/program). These findings mark an increase (16%) in first-year enrollment over the 19-year average (i.e., 38.4/program versus an average of 33.1/program). Twenty-nine percent of the applicant pool was accepted (47.5/166.0) and of these, 81% were enrolled (38.4/47.5), thus an average of 19% of those accepted elected not to enroll in a particular program. Overall, 23% of the applicants were enrolled in 2001 (38.4/166). The ratio of applicants to enrollees was over 4.3:1, a lower ratio than the 5.0:1 value in the previous year.

Applicants and Students Enrolled by Consortia Region

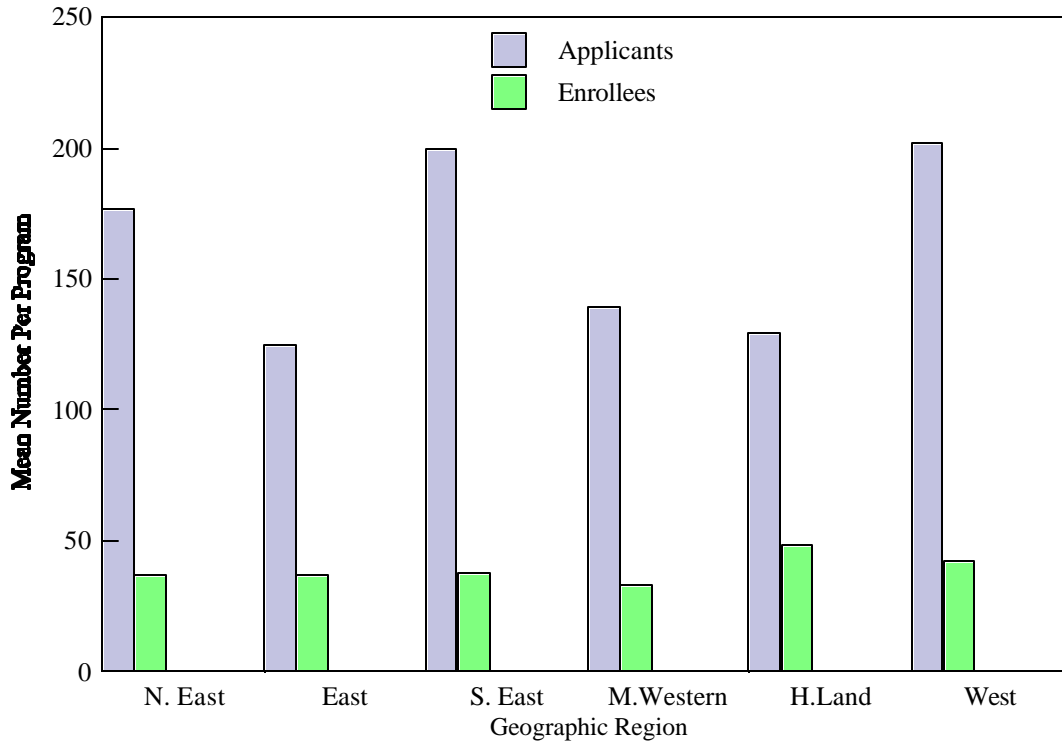
A comparison between the mean number of applicants by consortia region is shown in Table 52 and Figure 12 (next page), ‘N’ indicates the number of programs responding. Programs in the Western region averaged 202 applicants per program, while programs in the Eastern region, 125 per program. The Eastern region had the largest decrease in the number of applicants from last year (23.4%).

Table 52. Number of Applicants and Enrollees by Region

Consortia <u>Region</u>	<u>Applicants</u>			<u>Enrollees</u>		
	<u>N</u>	<u>Total</u>	<u>% Change Prev. Year</u>	<u>N</u>	<u>Total</u>	<u>Ratio</u>
Northeastern	18	176.9	- 17.8%	23	37.4	4.7:1
Eastern	12	124.6	- 23.4%	15	37.4	3.3:1
Southeastern	15	199.9	- 19.5%	18	37.8	5.3:1
Midwestern	17	139.4	- 13.6%	23	33.1	4.2:1
Heartland	5	129.2	- 15.5%	11	48.8	2.6:1
Western	<u>12</u>	<u>202.0</u>	<u>-16.5%</u>	<u>15</u>	<u>42.2</u>	<u>4.8:1</u>
Total	79	166.0	- 16.9%	105	38.4	4.3:1

The largest number of enrollees was in the Heartland region (48.8) and the smallest number was in the Midwestern region (33.1).

Figure 12. Applicants and Students Enrolled by Region, 2001-2002



Trends in P.A. Student Enrollment, 1983 Through 2001

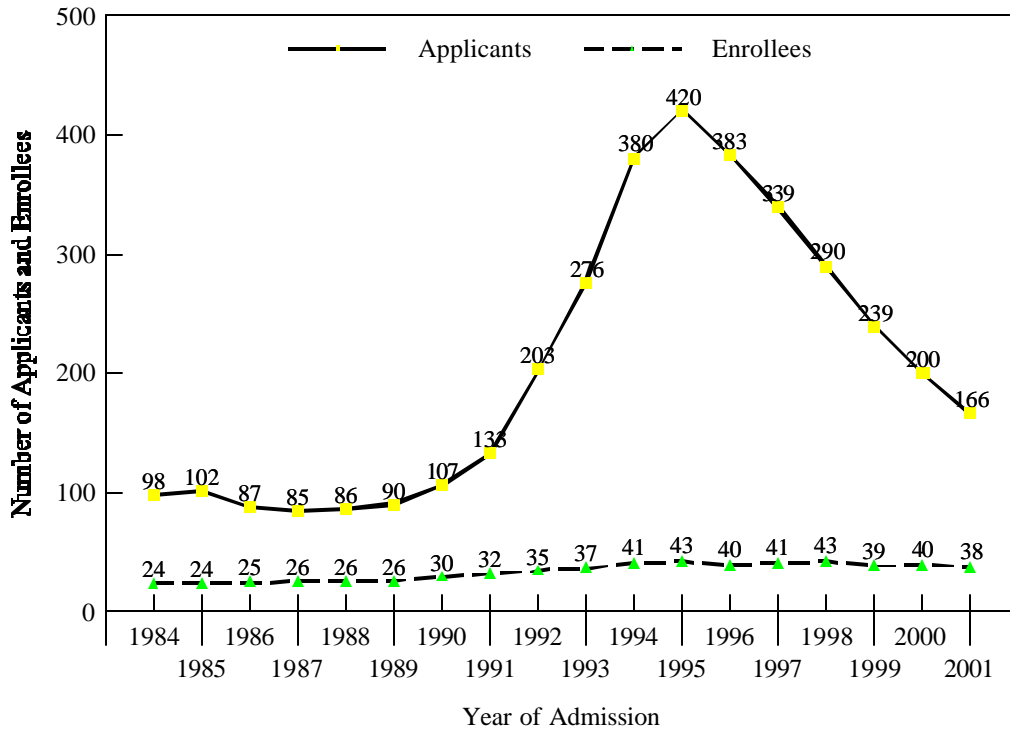
The number of applicants and students enrolled in P.A. programs for the nineteen-year period from 1983 through 2001 are shown in Table 53 and Figure 13 (next page).

Table 53. P.A. Applicants and Students Enrolled, 1983 Through 2001

Academic Year	Mean Number Applicants		Mean Number Accepted		Mean Number Enrolled		Mean Ratio Appl./Enroll
	Applicants	(N)	Accepted	(N)	Enrolled	(N)	
1983-1984	N/A	--	N/A	--	24.0	43	N/A
1984-1985	98.4	32	30.4	35	24.1	43	4.0:1
1985-1986	101.8	25	44.5	35	24.3	42	4.0:1
1986-1987	86.5	30	31.2	40	24.9	47	3.5:1
1987-1988	84.7	31	30.2	42	25.6	47	3.3:1
1988-1989	86.1	36	30.2	39	25.9	46	3.3:1
1989-1990	90.2	33	33.0	40	26.1	46	3.5:1
1990-1991	106.5	37	35.6	45	29.6	49	3.6:1
1991-1992	133.2	33	36.8	41	32.2	47	4.1:1
1992-1993	203.2	51	40.6	49	35.0	57	5.8:1
1993-1994	275.7	52	39.6	46	37.0	55	7.4:1
1994-1995	379.6	54	44.9	55	41.4	58	9.2:1
1995-1996	419.5	53	44.7	62	42.9	71	9.8:1
1996-1997	383.3	57	45.6	71	39.6	76	9.7:1
1997-1998	338.6	74	46.0	83	40.5	91	8.4:1
1998-1999	290.4	73	48.0	83	42.6	92	6.8:1
1999-2000	238.8	80	42.6	96	39.3	105	6.1:1
2000-2001	199.7	80	48.5	91	40.1	101	5.0:1
<u>2001-2002</u>	<u>166.0</u>	<u>79</u>	<u>47.5</u>	<u>98</u>	<u>38.4</u>	<u>105</u>	<u>4.4:1</u>
19-Yr. Mean	204.7	50	39.9	58	33.3	64	5.9:1

From 1984 through 2001 the number of the applicants ranged from 84.7 to 419.5 persons, and averaged 204.7 over the eighteen-year period. Figure 13 illustrates the trends in the number of applicants and students enrolled from 1984 through 2001.

Figure 13. Trends of Applicants and Students Enrolled: 1983 Through 2001



The mean number of applicants/program remained relatively constant from 1984 through 1989, then increased systematically by over 350% until 1995. Since 1995, the number of applicants/program has decreased by 60.5%. There had also been a systematic increase in enrollees from 1984 through 1995. Since then, the mean number enrolled has decreased to 38. The average number of enrollees over the eighteen-year period is 33.3 students/program.

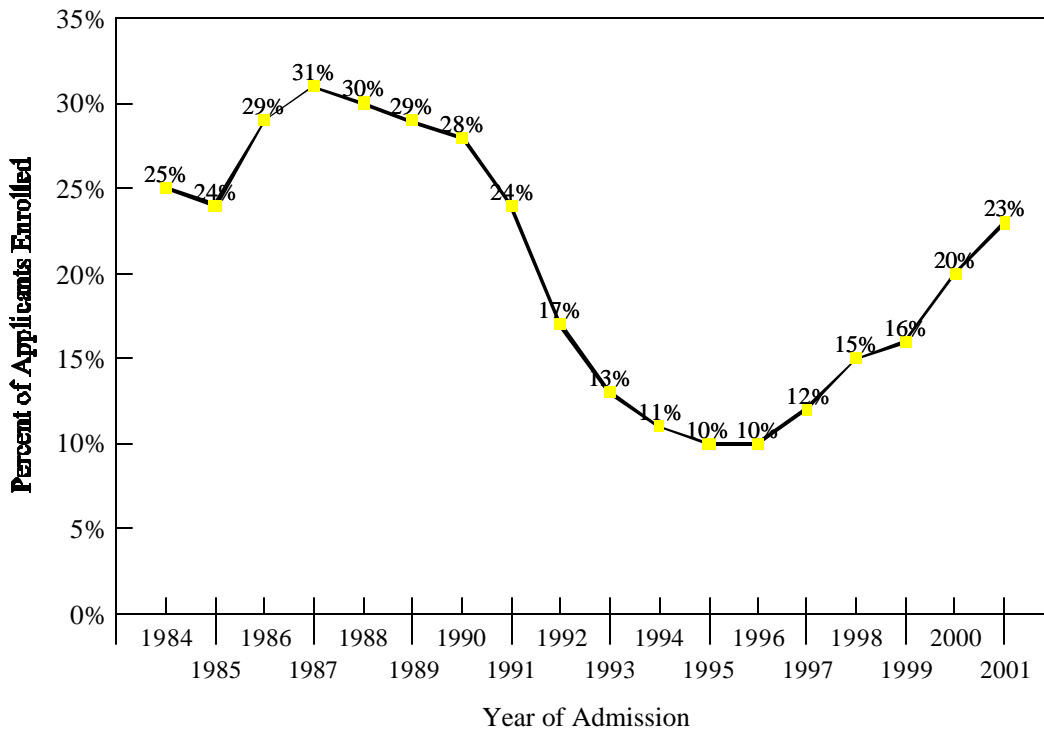
The mean number and relative proportion of male and female students enrolled in P.A. programs over the past nineteen years are shown in Table 54 (next page). The proportion of female and male P.A. students enrolled from 1983 through 2001 remained relatively constant, averaging 61.5% and 38.5%, respectively. These figures include part-time students.

Trends in the percent of applicants enrolled are illustrated in Figure 14 (next page). The proportion of applicants enrolled systematically decreased from a high of 31% in 1987 to a low of 10% in 1995, with an increase to 23% in 2001.

Table 54. First-Year Class Enrollment, 1983 Through 2001

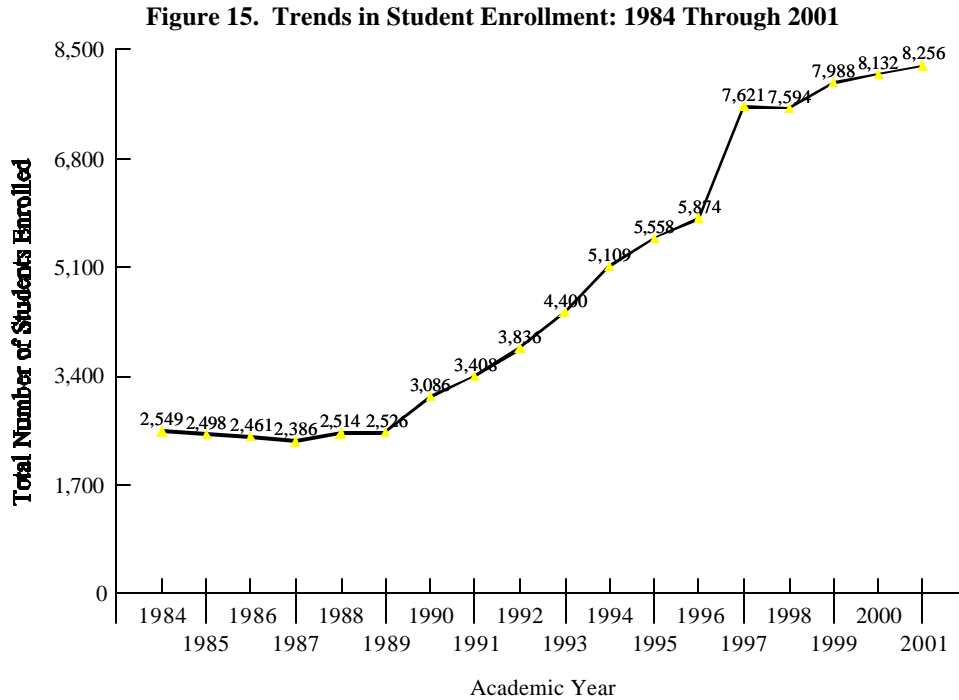
Academic Year	N	Female		Male		Total	
		Mean	(%)	Mean	(%)	Mean	N
1983-1984	39	13.6	58.4%	9.7	41.6%	24.0	43
1984-1985	39	14.6	61.6%	9.1	38.4%	24.1	43
1985-1986	42	15.3	63.0%	9.0	37.0%	24.3	41
1986-1987	44	15.5	62.2%	9.4	37.8%	24.9	47
1987-1988	47	15.7	61.6%	9.9	38.4%	25.6	47
1988-1989	46	16.2	62.3%	9.8	37.7%	25.9	46
1989-1990	46	16.4	62.8%	9.7	37.2%	26.1	46
1990-1991	47	16.3	55.1%	13.3	44.9%	29.6	49
1991-1992	47	19.4	60.2%	12.8	39.8%	32.2	47
1992-1993	55	20.7	59.8%	13.9	40.2%	35.0	56
1993-1994	55	22.2	61.5%	13.9	38.5%	37.0	55
1994-1995	60	24.4	60.2%	16.1	39.8%	41.1	55
1995-1996	71	22.8	58.2%	16.4	41.8%	39.2	71
1996-1997	77	23.5	61.4%	14.8	38.6%	38.3	77
1997-1998	95	24.4	61.9%	15.0	38.1%	39.4	95
1998-1999	91	25.0	62.5%	15.0	37.5%	40.0	91
1999-2000	103	24.0	62.8%	14.2	37.2%	40.2	103
2000-2001	102	24.8	64.9%	13.4	35.1%	38.2	102
<u>2001-2002</u>	<u>105</u>	<u>26.7</u>	<u>68.1%</u>	<u>12.5</u>	<u>31.9%</u>	<u>39.2</u>	<u>105</u>
19-Yr Mean	64	20.1	61.5%	12.5	38.5%	32.9	64

Figure 14. Trends in Percent of Applicants Enrolled: 1984 Through 2001



Total Enrollment in P.A. Programs

Figure 15 illustrates the trends in total student enrollment from 1984 through 2001. Estimates of total enrollment are based on summing mean values for enrollment in the 1st, 2nd and 3rd year classes, then multiplying by the number of programs represented. For the 105 programs we estimate total enrollment to be 8,256 in 2001. (The calculations were as follows, 1st yr. $105 \times 39.2 = 4,116$, 2nd yr. $101 \times 35.8 = 3,616$ and 3rd yr. $18 \times 29.1 = 524$). If one would estimate 1st year enrollment based upon 129 programs, first year enrollment would be $130 \times 39.2 = 5,096$, an increase of 980 students.



Total enrollment remained relatively constant from 1984 through 1989. Subsequently, there had been a linear and relatively steep sustained increase until 1996. In 1997, there was a dramatic increase of 30%. Since then, there has been an 8% increase. The two factors influencing the number of P.A. students enrolled have been, (a) a larger number of first-year students enrolled and (b) an increase in the total number of programs.

In addition, since 1984 the number of P.A. programs has changed as follows: 53 (1984); 51 (1985); 49 (1986); 50 (1987); 51 (1988 and 1989); 55 (1990 and 1991) 59 (1992); 63 (1993); 67 (1994); 81 (1995); 89 (1996); 104 (1997); 107 (1998); 120 (1999); 126 (2000) and 130 in 2001.

Applicants and Students Enrolled by Age

The age distribution of applicants, students accepted and those enrolled for the first-year class is shown in Table 55 (next page). The data are expressed as the mean number of individuals per program within each of the age categories examined. Over one-fourth (30.2%) of the number of applicants was less than 24 years of age. Approximately 40% of the applicants were between 24-29 years. Almost one-third of the students enrolled in the first-year class were over 30 years of age; almost one-half were between the ages of 20 and 26 and 2% were under 20 years of age.

Table 55. Applicants and Enrollees by Age, Class of 2001-2002

Age	All Applicants		Number Accepted		Number Enrolled	
	Mean (N=77)	(%)	Mean (N=93)	(%)	Mean (N=103)	(%)
Under 20	3.0	1.9%	1.9	4.2%	0.8	2.1%
20-23	45.2	28.3%	12.0	26.3%	9.5	25.3%
24-26	40.5	25.3%	10.7	23.4%	9.0	24.0%
27-29	24.2	15.1%	6.9	15.1%	5.9	15.7%
30-33	18.2	11.4%	5.7	12.5%	5.0	13.3%
Over 33	<u>28.8</u>	<u>18.0%</u>	<u>8.5</u>	<u>18.6%</u>	<u>7.3</u>	<u>19.5%</u>
Total	166.0	100.0%	47.5	100.0%	38.0	100.0%
	(N=79)*		(N=98)		(N=105)	

* Number of programs reporting.

Students Enrolled by Age and Consortia Region

The distribution of students enrolled in the 2001-2002 class by age and consortia region is shown in Table 56. The table reports the percentage of students per program (N=103 programs) in each age category. Students enrolled in those programs located in the Eastern region tended to be younger than those in other regions, 38% were 23 years of age or less. Conversely, students in the Western region were notably older than P.A. students in other regions, 47.3% were over 30 years of age.

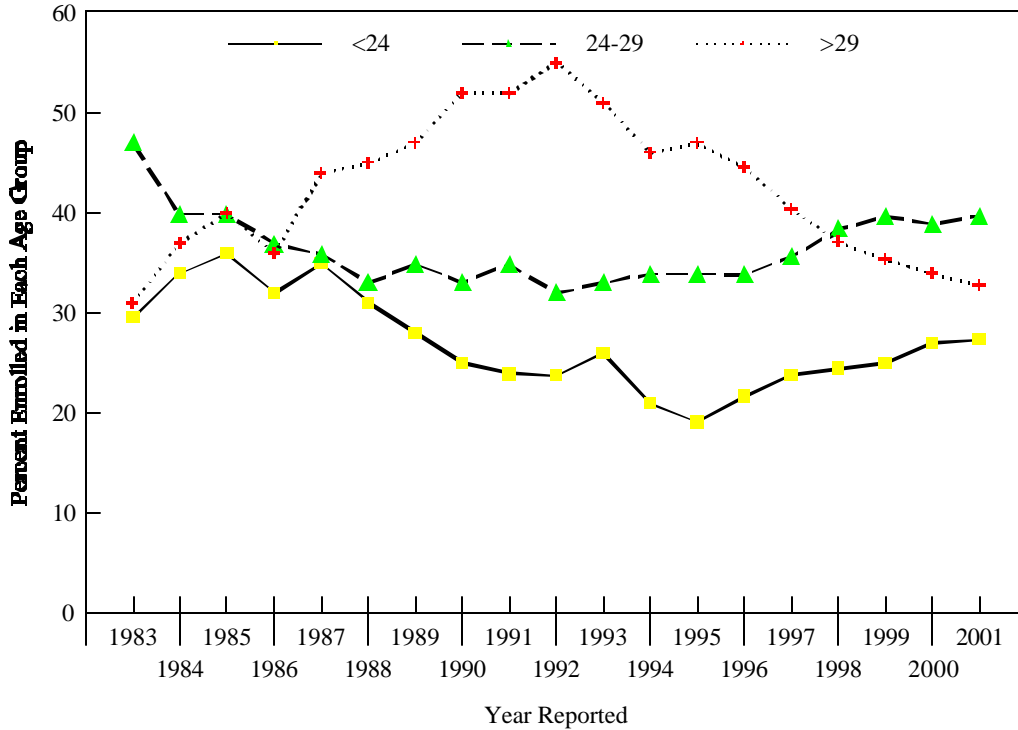
Table 56. P.A. Student Enrollment by Age and Region, Class of 2001-2002

Consortia	Age at Application					
	< 20 (%)	20-23 (%)	24-26 (%)	27-29 (%)	30-33 (%)	>33 (%)
Northeastern	5.3%	28.9%	22.6%	13.1%	12.4%	17.7%
Eastern	7.7%	30.1%	22.3%	16.8%	10.9%	12.2%
Southeastern	0.0%	27.4%	23.2%	16.8%	14.4%	18.2%
Midwestern	0.2%	30.1%	21.1%	11.9%	12.1%	24.6%
Heartland	0.0%	32.3%	25.0%	12.5%	14.7%	15.5%
Western	<u>0.0%</u>	<u>7.4%</u>	<u>24.5%</u>	<u>20.8%</u>	<u>14.9%</u>	<u>32.4%</u>
Total	2.1%	25.3%	24.0%	15.7%	13.3%	19.5%

Trends in Enrollment by Age

Trends in the age of enrolled students from 1983 to 2001 are shown in Figure 16 (next page). The data were grouped into the following three age categories: under 24 years of age, those between 24 and 29 years and those over 29 years of age. The proportion of enrollees less than 24 years of age increased to 27.4% in 2001, from a pattern of decrease through 1995. Those between the ages of 24 and 29 initially decreased from 1983 to 1992; since then, there has been a gradual increase to the current value of 39.7%. The enrollment of students that were over 29 years of age had systematically increased over time beginning at 32% of the enrollees in 1983, peaking in 1992 (56%) and then decreasing to the current level of 32.8% of enrollees. This is the fourth year since 1986 that the percentage of students over 29 years of age was less than the 24 to 29 year old group.

Figure 16. Trends in Enrollee Age: 1983 Through 2001



Average Age of Applicants

The survey included questions asking the average age of all of the programs' applicants, accepted applicants and currently enrolled full- and part-time students. As a result of these questions, the average applicant age was 27.5, accepted applicant age was 28.1, full-time student age was 28.0 and the average age for the part-time student was 35.0.

Table 57 lists average ages of these categories by consortia region. The Western region had the highest average age of applicants (28.7), accepted applicants (29.3) and full-time students (29.1). The Eastern region had the lowest average age of applicants (26.6), accepted applicants (27.1) and full-time students (27.0).

Table 57. Average Age of Applicants, Accepted Applicants and Enrollees by Region

Consortia Region	Applicants		Accepted Applicants		Enrollees Full-Time		Enrollees Part-Time	
	N	Average Age	N	Average	N	Average	N	Average
Northeastern	19	28.0	22	28.6	23	28.3	3	31.3
Eastern	11	26.6	13	27.1	14	27.0	1	-----
Southeastern	13	27.6	17	27.9	18	27.8	0	-----
Midwestern	18	26.7	21	27.9	23	27.9	3	39.7
Heartland	7	27.5	10	27.3	11	27.7	0	-----
Western	<u>12</u>	<u>28.7</u>	<u>13</u>	<u>29.3</u>	<u>15</u>	<u>29.1</u>	<u>1</u>	-----
Total	80	27.5	96	28.1	104	28.0	8	35.0

Applicants and Students Enrolled by Ethnicity

The ethnicity of applicants and students enrolled in the first-year class is shown in Table 58. The data are expressed as the mean number and percentage of applicants and enrollees per program from each ethnicity category. Almost three-fourths of the applicants (72.2%) were White/Non-Hispanic; 7.5% were Black/African-American, 6.1% were Latino/Hispanic, 6.9% were Asian.

Table 58. Applicants and Students Enrolled by Ethnicity

<u>Ethnicity</u>	<u>All Applicants</u>		<u>Number Enrolled</u>		<u># of Programs</u>
	<u>Mean</u>	<u>(%)</u>	<u>Mean</u>	<u>(%)</u>	<u>w/o Minorities</u>
	(N=78)		(N=105)		(N=105)
White/Non-Hispanic	119.8	72.2%	29.0	77.3%	0
Black/African-American	12.4	7.5%	2.3	6.1%	32
Latino/Hispanic/Mex. Am.	10.1	6.1%	2.6	6.9%	41
Asian	11.5	6.9%	2.2	5.9%	34
Asian Subpopulation	1.5	0.9%	0.4	1.1%	83
Native Hawaiian/Other P.I.	0.7	0.4%	0.2	0.5%	97
American Ind./Alaskan	1.4	0.8%	0.4	1.1%	85
Other	<u>8.6</u>	<u>5.2%</u>	<u>0.4</u>	<u>1.1%</u>	<u>84</u>
Total (N=79)	166.0	100%	37.5	100%	7

Overall, 28% of the applicants were members of an ethnic minority, 27% of whom were Black/African-American. Among those enrolled, 77.3% were White/Non-Hispanic and the remainder (22.7%) was from an ethnic minority. A comparison between the proportion of minority applicants and those enrolled suggests that preference is not given to applicants on the basis of ethnicity, for example, 28% of the applicants and 23% of those enrolled were described as an ethnic minority. Thirty-two of the 105 program respondents (30.5%) did not enroll any Black/African-American students and forty-one programs did not enroll any Hispanic students. Seven programs (6.7%) did not enroll any type of minority student in 2001.

Ethnic Representation of Applicants and Enrollees by Consortia Region

The mean number and proportion of P.A. applicants and students enrolled in the first-year class on the basis of both ethnicity and consortia region is in Table 59.

Table 59. Applicants and Enrollees by Ethnicity and Consortia Region

<u>Consortia Region</u>	<u>Applicants</u>				<u>Enrollees</u>			
	<u>White</u>		<u>Non-White</u>		<u>White</u>		<u>Non-White</u>	
	<u>Mean</u>	<u>%</u>	<u>Mean</u>	<u>%</u>	<u>Mean</u>	<u>%</u>	<u>Mean</u>	<u>%</u>
Northeastern	111.3	63.9%	63.0	36.1%	25.4	72.4%	9.7	27.6%
Eastern	100.1	77.7%	28.7	22.3%	31.3	83.7%	6.1	16.3%
Southeastern	143.7	71.9%	56.2	28.1%	29.1	77.0%	8.7	23.0%
Midwestern	116.8	87.6%	16.6	12.4%	28.4	89.0%	3.5	11.0%
Heartland	122.7	85.8%	20.3	14.2%	35.5	75.9%	11.3	24.1%
Western	<u>125.8</u>	<u>62.2%</u>	<u>76.3</u>	<u>37.8%</u>	<u>28.3</u>	<u>66.4%</u>	<u>14.3</u>	<u>33.6%</u>
Total	119.8	72.2%	46.2	27.8%	29.0	77.3%	8.5	22.7%

For purposes of comparing across regions, minorities were grouped into a single category and designated non-white. There was considerable variation in the proportion of minorities applying to, and enrolled in, programs across regions. Programs in the Western region had the largest proportion of non-white applicants at 38% and the Midwestern region the least number, with only 12% being non-white. The Western region enrolled the largest percentage (34%) of non-white students. Programs in the Midwestern region had the fewest number of non-white enrollees (11.0%).

The number and percent of programs reporting no minority students enrolled in the first-year class is shown in Table 60. Six programs, in separate regions, had no minority students enrolled.

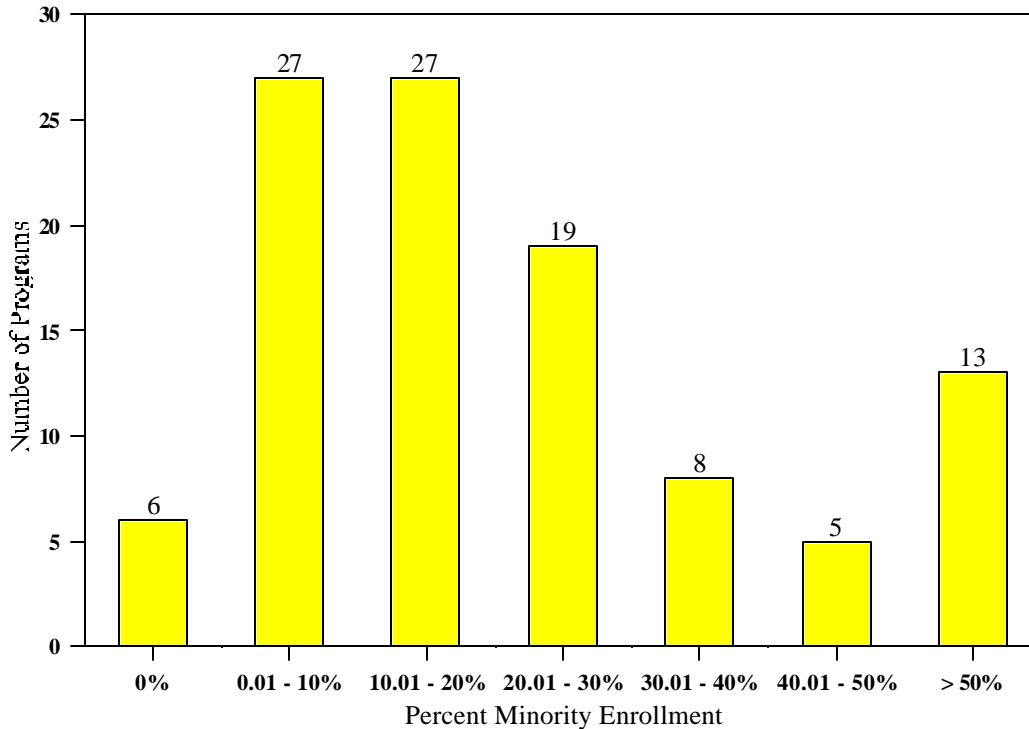
Table 60. Number of Programs with No Minority Enrollment by Consortia Region

<u>Consortia Region</u>	<u>N</u>	<u># of Programs</u>	<u>(%)</u>
Northeastern	22	1	4.5%
Eastern	15	2	13.3%
Southeastern	18	1	5.6%
Midwestern	23	3	13.0%
Heartland	12	0	0.0%
Western	15	0	0.0%
Total	105	7	6.7%

Number of Programs versus Percent Minority Student Enrollment

Figure 17 represents the number of programs with certain percentages of minority enrollment. There are 40 programs that have a larger percentage of minority enrollment than the mean of 22.6%; 65 programs have less. The average minority enrollment for programs with greater than 20% is 43%; for programs with less than 20% minority enrollment, 10.0%.

Figure 17. Number of Programs vs. Percentage of Minority Enrollment



Trends in Minority Student Enrollment, 1983 Through 2001

The proportion of minority and non-minority students enrolled in P.A. programs over a nineteen-year period (1983-84 through 2001-2002) is shown in Table 61 and Figure 18 (next page). The proportion of non-white students in the first-year class fluctuated between 14% in 1983 and 25% in 2000-2001. Expressed differently, the number of minority students has more than doubled from a mean of 4.0/program in 1983 to 10.0/program in 2000.

Table 61. Ethnicity of P.A. Students Enrolled from 1983 Through 2001

Academic Year	N	White		Non-White		First Yr. Enrollment
		Mean	%	Mean	%	
1983-1984	39	20.7	86.2%	4.0	13.8%	24.0
1984-1985	39	20.3	83.4%	4.1	16.6%	24.5
1985-1986	41	20.9	85.3%	3.6	14.7%	24.6
1986-1987	47	19.6	78.8%	5.3	21.1%	24.9
1987-1988	47	19.7	77.7%	5.9	22.3%	25.6
1988-1989	46	20.8	79.7%	5.3	20.3%	25.9
1989-1990	46	20.9	80.1%	5.2	19.9%	26.1
1990-1991	48	24.6	82.3%	5.3	17.7%	29.9
1991-1992	47	26.0	81.0%	6.1	19.0%	32.1
1992-1993	56	26.9	82.5%	5.7	17.5%	32.6
1993-1994	55	29.3	82.3%	6.3	17.7%	35.6
1994-1995	58	33.2	77.5%	8.8	20.9%	42.0
1995-1996	69	32.4	77.7%	9.3	22.3%	41.5
1996-1997	76	31.3	79.6%	8.0	20.4%	39.6
1997-1998	91	32.4	79.2%	8.5	20.8%	40.6
1998-1999	89	32.9	78.9%	8.8	21.1%	42.6
1999-2000	103	30.7	77.9%	8.7	22.1%	39.3
2000-2001	102	30.2	75.1%	10.0	24.9%	40.1
<u>2001-2002</u>	<u>105</u>	<u>29.0</u>	<u>77.3%</u>	<u>8.5</u>	<u>22.7%</u>	<u>38.0</u>
19-yr. Mean	63	26.4	79.8%	6.7	20.2%	33.1

Minority student enrollment over nineteen years has averaged 20.2% per year (mean of 6.7 students/program). It should be noted that values for the 1992-93 and 1993-94 period may be under represented because some programs with large minority enrollments were non-respondents in both years.

Academic Characteristics of P.A. Students

The academic profile of students at the time of enrollment are shown in Table 62 (next page). Almost three-fourth (72.8%) of the students enrolled in 2001 had earned at least a baccalaureate degree (66.5% as their highest degree) while less than one-fifth (17.7%) entered with no academic degree. Only 10% of the enrollees had earned an associate level degree prior to entry. Of the full-time students, 6.2% were admitted with a graduate-level degree, predominantly a masters degree (4.6%).

Figure 18. Trends in Minority Student Enrollment: 1983 Through 2001

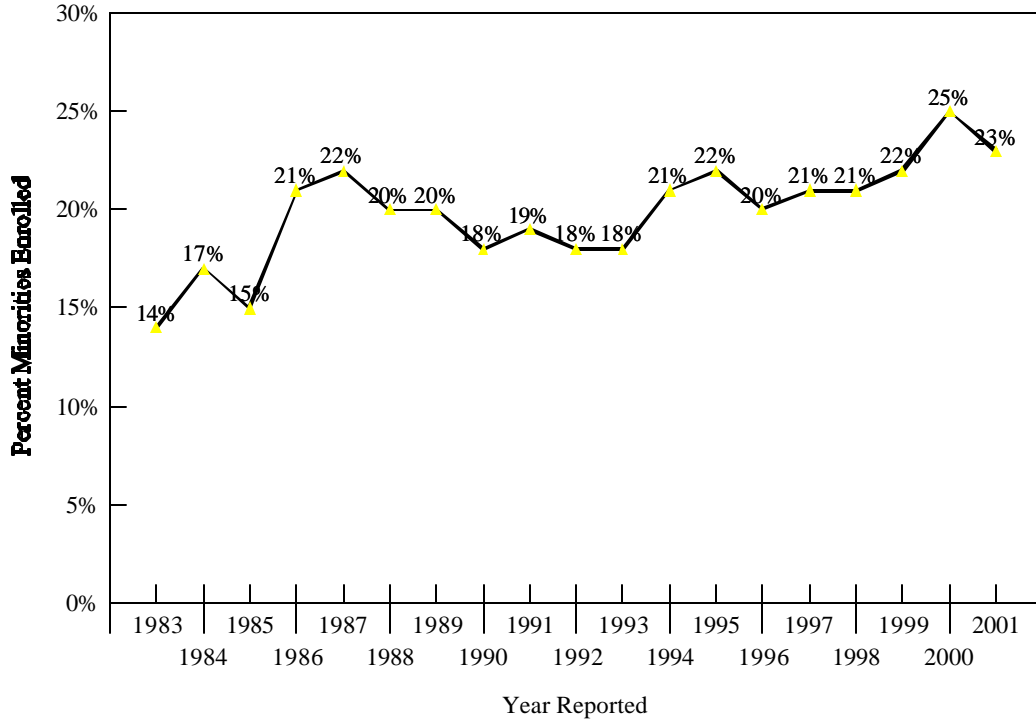
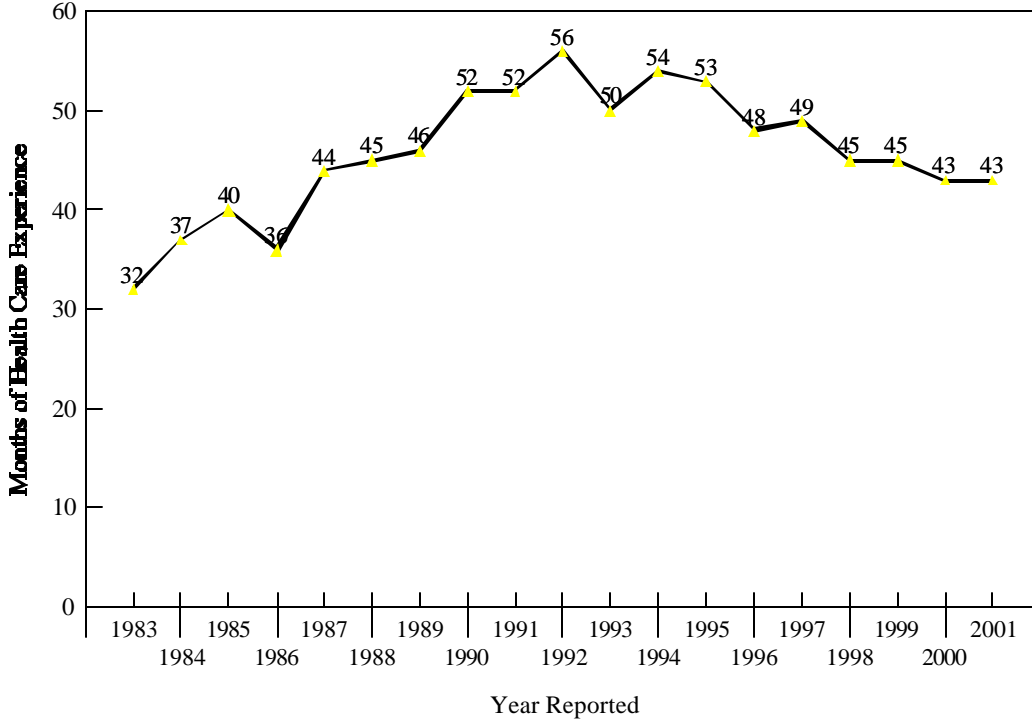


Table 62. Academic Characteristics of P.A. Students Enrolled in 2001

Highest Academic Credential Earned	Full-Time		Part-Time		Total	
	Mean	%	Mean	%	Mean	%
No Academic Degree	6.6	17.7%	0.1	8.3%	6.8	17.7%
Associate Degree	3.6	9.7%	0.2	16.7%	3.8	9.9%
Baccalaureate Degree	24.8	66.5%	0.8	66.7%	25.6	66.5%
Masters Degree	1.7	4.6%	0.1	8.3%	1.8	4.7%
Doctoral Degree	0.6	1.6%	0.0	0.0%	0.6	1.6%
Total	37.3	100.0%	1.2	100.0%	38.5	100.0%

The mean number of months of health care experience (H.C.E.) of students at the time of enrollment for 2001-2002 is 42.9 months. As shown in Figure 19 (next page), the months of health care experience systematically increased from 1983 through 1992 to a high of 56 months. Since that time, H.C.E. has had an overall decrease to 43 months in 2001.

Figure 19. Trends in Health Care Experience of Enrollees: 1983 Through 2001



Academic Characteristics of Enrolled P.A. Students by Consortia Region

A comparison of the academic degrees earned by entering students across regions is shown in Table 63. The data are expressed as the percentage of students per program in each degree category. Each of the regions had more than 50% of students entering with a baccalaureate degree. The Eastern region had the largest number of enrollees with no degree (35%). The Midwestern region had 4.0% of its enrollees with a doctoral degree.

Table 63. Academic Characteristics of Enrollees by Region, Class of 2001-2002

Consortia Region	N	Degree Characteristics					Total Mean
		No Degree	Associate Degree	Bacc. Degree	Masters Degree	Doctoral Degree	
Northeastern	22	27.4%	10.1%	56.6%	3.5%	2.4%	38.8
Eastern	14	34.9%	5.0%	53.3%	4.6%	2.2%	37.0
Southeastern	17	8.4%	10.2%	73.4%	6.2%	1.8%	37.8
Midwestern	23	15.3%	8.9%	68.0%	3.8%	4.0%	32.2
Heartland	12	11.9%	9.4%	71.3%	6.6%	0.8%	36.5
Western	15	5.9%	11.2%	75.6%	5.6%	1.6%	44.0
Total	103	17.7%	9.9%	66.5%	4.7%	1.6%	37.8

An analysis of grade point average (GPA) and mean number of months of health care experience by consortia region is shown in Table 64.

Table 64. Grade Point Average and Mean Number of Months of Health Care Experience by Region, Class of 2001-2002

Consortia Region	Grade Point Average			Months of H.C.E.		
	<u>N</u>	<u>Mean</u>	<u>S.D.</u>	<u>N</u>	<u>Mean</u>	<u>S.D.</u>
Northeastern	22	3.25	0.10	16	33.3	19.6
Eastern	13	3.41	0.13	11	34.5	23.1
Southeastern	18	3.30	0.20	15	41.6	23.6
Midwestern	23	3.39	0.20	23	45.5	31.3
Heartland	11	3.46	0.18	9	44.6	15.2
Western	<u>13</u>	<u>3.37</u>	<u>0.18</u>	<u>12</u>	<u>58.7</u>	<u>23.9</u>
Total	100	3.40	0.17	86	42.9	28.6

The cumulative GPA of entering students ranged from 3.25 to 3.46 with a mean of 3.40. Programs in the Heartland regions reported the highest GPA for entering students. The average number of months of health related experience prior to admission varied extensively across regions. For example, students in programs located in the Northeastern region had completed an average of 33 months of health-related experience while those entering programs in the Western regions had 59 months of health care experience. The average for all programs was under four years (42.9 months).

Unlicensed Medical Graduates: Applicants and Students Enrolled

The total number, mean number/program and proportion of unlicensed medical graduates (designated as UMG's) who applied to, and enrolled in, P.A. programs for the 2001-2002 class is shown in Table 65. The total number of UMG applications to P.A. programs increased from 286 in 2000 to 360 in 2001. The number per program also increased from 3.6/program in 2000 to 4.3/program in 2001. There were 35 programs that received applications from UMG's in 2001. Seventy-one percent of the applicants were U.S. Citizen UMG's.

Table 65. Admission of Unlicensed Medical Graduates

Citizenship Status	Class Entering in 2001 – 2002					
	Applied			Enrolled		
	<u>N(N)*</u>	<u>Mean**</u>	<u>%</u>	<u>N(N)*</u>	<u>Mean</u>	<u>%</u>
U.S. Citizen	256(40)	2.4	71.1%	53(36)	0.57	61.6%
Alien	<u>104(23)</u>	<u>1.9</u>	<u>28.9%</u>	<u>33(22)</u>	<u>0.41</u>	<u>38.4%</u>
Total**	360(35)	4.3	100.0%	86(31)	0.98	100.0%

* N = Number of UMG applicants or enrollees; (N) = Number of programs with at least one UMG applicant or enrollee.

** Mean based on the total number of programs responding, including those with no UMG applicants or enrollees

Eighty-six UMG's were enrolled in 2001, 39% less than the number of enrollees in 2000 (140). Twenty-four percent of the UMG applicants were enrolled in a P.A. program in 2001, where 49% were enrolled in 2000. A higher percentage of alien UMG's were admitted (31.7%) as compared to the U.S.-citizen UMG's (20.7%).

Unlicensed Medical Graduates: Regional Analysis

The mean number of UMG applicants and enrollees by consortia region is shown in Table 66. Programs located in the Western region received the largest number of UMG applications (mean of 10.5/program) while programs in the Eastern region averaged 1.18/program UMG applicants.

Table 66. Unlicensed Medical Graduate Applicants and Enrollees by Region, 2001-2002

<u>Consortia Region</u>	<u>Applied</u>		<u>Enrolled</u>	
	<u>Mean</u>	<u>N</u>	<u>Mean</u>	<u>N</u>
Northeastern	1.79	19	0.79	21
Eastern	1.18	11	0.40	10
Southeastern	3.75	16	1.06	16
Midwestern	4.42	19	1.79	19
Heartland	8.00	8	0.44	9
Western	<u>10.50</u>	<u>10</u>	<u>0.85</u>	<u>13</u>
Total	4.34	83	0.98	88

Programs in the Midwestern region enrolled the largest proportion of UMG's enrolled (1.79/program/region) and those in the Eastern region had 0.40/program UMG's enrolled. With respect to the total applicant pool/program, UMG's accounted for only 2.6% (4.34/166) of all applicants and less than 2.5% (0.98/39) of all first-year enrollees in 2001.

The number and location of programs, by region, reporting no UMG applicants and/or enrollees for the most recently enrolled class are shown in Table 67. In total, there was a majority of programs that did not receive an application from an UMG (48/83; 58%) and a majority did not enroll an UMG (57/88; 64.8%) in the 2001-2002 class.

Table 67. Number of Programs Reporting No Applications and/or Enrollment of Unlicensed Medical Graduates by Region, 2001-2002

<u>Consortia Region</u>	<u>Applied</u>		<u>Enrolled</u>	
	<u>N/N*</u>	<u>%</u>	<u>N/N*</u>	<u>%</u>
Northeastern	12/19	63.2%	14/21	66.7%
Eastern	7/11	63.6%	7/10	70.0%
Southeastern	9/16	56.3%	10/16	62.5%
Midwestern	11/19	57.9%	11/19	57.9%
Heartland	4/ 8	50.0%	6/ 9	66.7%
Western	<u>5/10</u>	<u>50.0%</u>	<u>9/13</u>	<u>69.2%</u>
Total	48/83	57.8%	57/88	64.8%

* N/N = number of programs with no UMG's/total number of programs reporting.

Trends in UMG Applications and Enrollment, 1987 Through 2001

Data concerning UMG applicants and UMG students enrolled from 1987 through 2001 is shown in Table 68 (next page). The total number and mean number per program of UMG applicants and UMG students enrolled, as well as the proportion of UMG's relative to the total pool of UMG applicants and enrollees is presented for each year examined. In addition, the proportion of UMG applicants that were enrolled is also included. These data are also illustrated in Figures 20 and 21 (next pages).

Overall there has been a total of 2,574 UMG applicants (averaging 172/year) over the fifteen-year period examined. UMG applicants accounted for an average of 1.9% of the total applicant pool. Over the same period of time, there were 548 UMG's enrolled (37/year) which accounted for 1.4% of the total number of students enrolled. On average, only 20% of the UMG applicants were enrolled.

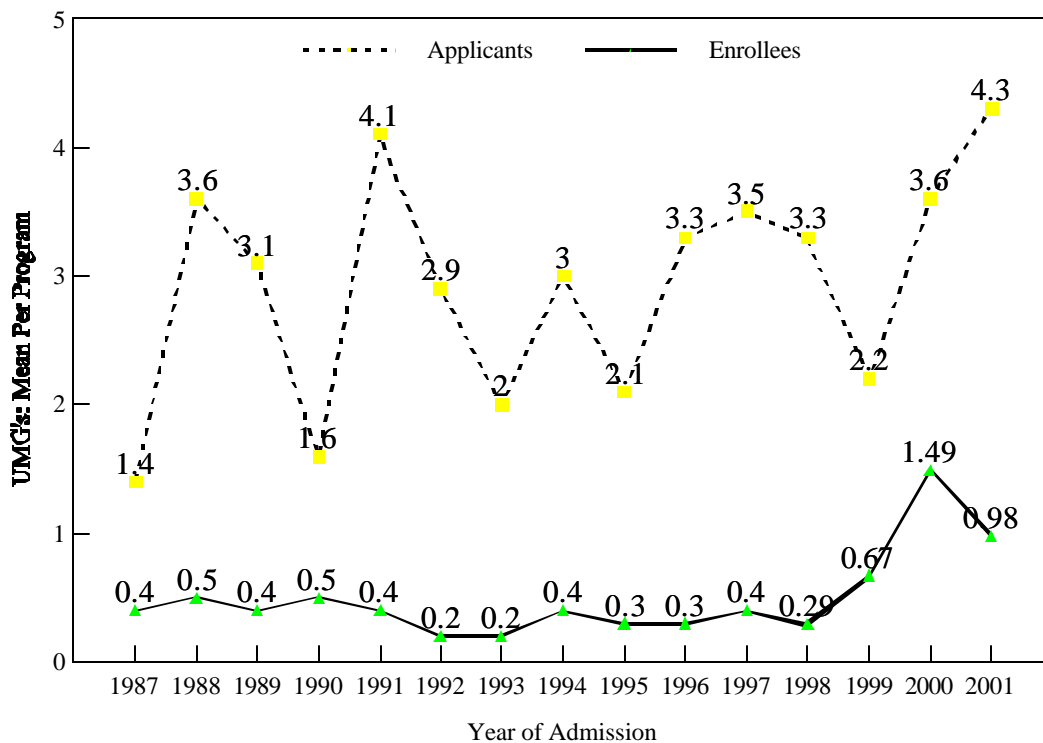
Table 68. Unlicensed Medical Graduates: Applicants and Enrollees, 1987 Through 2001

Academic Year	UMG Applications			UMG's Enrolled			% of UMG Applicants Enrolled
	Total N	Mean/Program	%*	Total N	Mean/Program	%*	
1987-1988	55	1.4	1.3%	17	0.40	1.4%	30.9%
1988-1989	142	3.6	3.4%	23	0.51	1.9%	16.2%
1989-1990	121	3.1	3.4%	18	0.39	1.5%	14.9%
1990-1991	73	1.6	1.5%	26	0.51	1.7%	35.6%
1991-1992	167	4.1	3.1%	18	0.40	1.2%	10.7%
1992-1993	161	2.9	1.4%	13	0.20	0.6%	8.1%
1993-1994	109	2.0	0.7%	12	0.20	0.5%	11.0%
1994-1995	143	3.0	0.8%	22	0.39	1.0%	15.4%
1995-1996	123	2.1	0.5%	24	0.33	1.0%	19.5%
1996-1997	217	3.3	0.8%	20	0.29	0.8%	9.2%
1997-1998	204	3.5	1.0%	37	0.40	1.0%	18.1%
1998-1999	243	3.2	1.1%	27	0.29	0.8%	11.1%
1999-2000	170	2.2	0.9%	65	0.67	1.8%	38.2%
2000-2001	286	3.6	1.8%	140	1.49	3.9%	41.4%
<u>2001-2002</u>	<u>360</u>	<u>4.3</u>	<u>2.7%</u>	<u>86</u>	<u>0.98</u>	<u>2.2%</u>	<u>23.9%</u>
15-Yr. Mean	172	2.9	1.9%	37	0.50	1.4%	20.3%

* Proportion of UMG's to total applicants and enrollees, respectively.

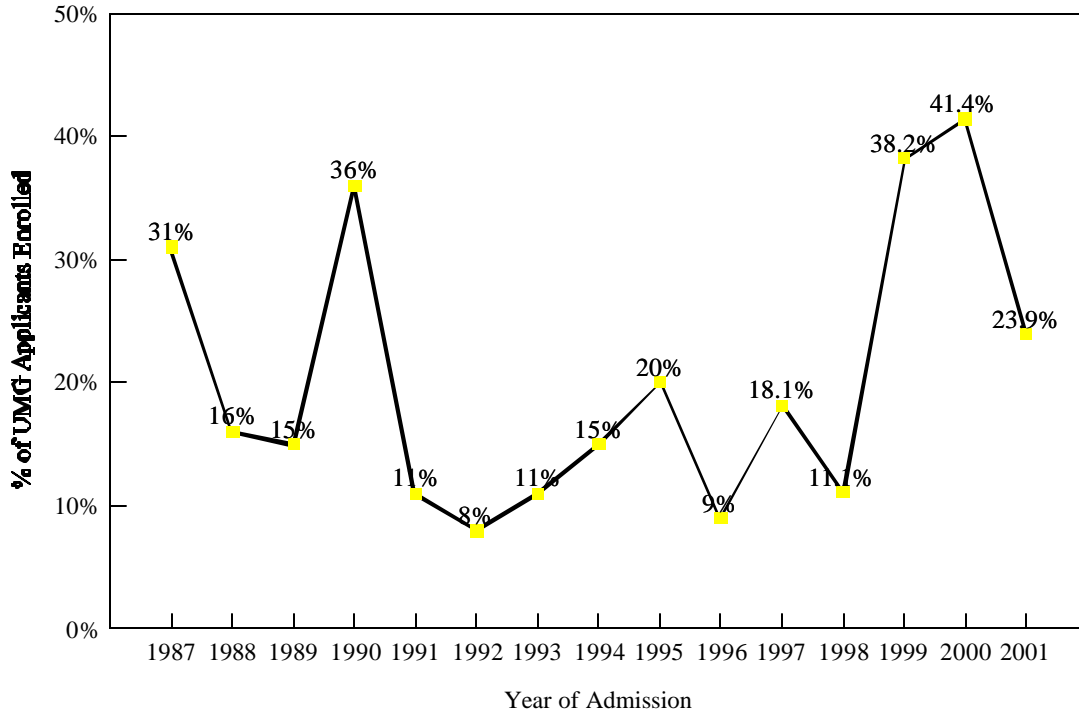
Figure 20 shows the mean number of UMG applicants and enrollees per program since 1987. Although the mean number of applicants has varied substantially over time, the mean number of UMG's enrolled per program has not fluctuated to the same extent.

Figure 20. Trends in U.M.G. Applicants and Enrollees: 1987 Through 2001



As shown in Figure 21 the percent of UMG applicants enrolled has fluctuated extensively over the past 15 years from a low of 8% to a high of 41.4%.

Figure 21. Percent of U.M.G. Applicants Enrolled: 1987 Through 2001



Disabled Students Enrolled in P.A. Programs

The number and proportion of students with a disability that were enrolled in the 2001-2002 class is presented in Table 69. The number and proportion of enrollees who were classified as disabled was very small for the entering class (approximately 1.0% of the total number of students enrolled).

Table 69. Enrollment of Disabled Students by Gender, 2001-2002

<u>Gender</u>	<u>1st Year Enrolled</u>		<u>Disabled</u>		<u>Number of Programs</u>
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	
Male	1314	32.8%	16	41.0%	105
Female	2697	67.2%	23	59.0%	105
Total	4011	100.0%	39	100.0%	105

There were more disabled female students than disabled male students. It should be noted that some students may have had an undetectable disability, thus, the figures reported herein may under-represent the actual number of disabled individuals.

SECTION IV. GRADUATE INFORMATION

Number and Attrition of Students by Gender

The number and gender of students graduating during the 2001-2002 academic year, and those withdrawing and decelerating prior to graduation, are shown in Table 70. The mean number of 2001 graduates was 36.8/program and represented 93% of the students originally enrolled in this class. We estimate that there was a total of 4,416 P.A.'s graduated from all programs graduating class in 2001 (120 programs x 36.8/program). It should be noted that ten of the new programs did not graduate students in 2001. As in previous years, the majority (62%) of 2001 graduates were women.

The mean number of students withdrawing prior to graduation was 1.9 students/program for an overall attrition Table 70. Number of Graduates and Students Withdrawn or Decelerated in 2001-2002 by Gender

<u>Gender</u>	<u>Number Graduated</u>		<u>Attrition of Students</u>		<u>Students Decelerated</u>	
	<u>Mean</u>	<u>%</u>	<u>Mean</u>	<u>%</u>	<u>Mean</u>	<u>%</u>
Female	22.7	93.8%	1.0	4.1%	0.5	2.1%
Male	14.1	91.6%	0.9	5.8%	0.4	2.6%
Total/Program	36.8	92.9%	1.9	4.8%	0.9	2.3%

* Proportion withdrawing or decelerating was calculated as:

$$\frac{\sum_{p=1}^N (G_p W_p \text{ or } D_p)}{\sum_{p=1}^N (G_p + W_p + D_p)}$$

where: G_p = number graduated from program "p".
 W_p = number withdrew from program "p".
 D_p = number decelerated from program "p".

rate of 4.8%. The attrition rate for males was higher than the attrition rate for females, 5.8% and 4.1% respectively. The attrition rate was lower than in 2000 (4.2%) and considerably lower than the average of 7.6% over the previous nineteen years.

On average, the rate of deceleration was 2.3%. A decelerated student was defined as one who was enrolled, experienced academic, personal, and/or financial difficulty, but remained a student in the program on a part-time basis and/or was on a temporary leave of absence. The reasons cited for withdrawal are presented in Table 71. There were a total of 157 students withdrawing from the 2001 graduating class (as reported by 53 programs). The most common reason for withdrawal was academic (47.8%). It should be noted that program staff provided the reasons cited for withdrawal, rather than the students involved.

Table 71. Reasons for Student Withdrawal from the Program

<u>Reason Given</u>	<u>N</u>	<u>(%)</u>	<u>Reason Given</u>	<u>N</u>	<u>(%)</u>
Academic	75	47.8%	Career Change	4	2.5%
Personal	26	16.6%	Medical	2	1.3%
Financial	26	16.6%	Other	24	15.3%
	Total	157		157	100.0%

Attrition Rates of Students by Consortia Region

The mean number of graduates, attrition rates, and students decelerated by consortia region are shown in Table 72. Programs in the Heartland region had the largest graduating classes with a mean of 51.9 students per program, while programs in the Midwestern regions had the smallest graduating class (30.4/program).

Table 72. Number Graduated, Withdrawn and Decelerated by Consortia Region

Consortia <u>Region</u>	<u>N</u>	Mean # <u>Graduated</u>	Mean and Rate <u>of Attrition</u>		Mean and Rate <u>of Deceleration</u>	
Northeastern	20	34.3	2.5	6.6%	0.9	2.4%
Eastern	12	36.8	2.7	6.6%	1.5	3.7%
Southeastern	13	33.8	1.5	4.2%	0.4	1.1%
Midwestern	22	30.4	1.0	3.1%	0.9	2.8%
Heartland	8	51.9	3.3	5.9%	0.9	1.6%
Western	<u>13</u>	<u>44.8</u>	<u>1.2</u>	<u>2.6%</u>	<u>0.5</u>	<u>1.1%</u>
Total	88	36.8	1.9	4.8%	0.9	2.3%

The highest attrition rates occurred in those programs located in the Eastern and Northeastern region (6.6%) while programs in the Western region had the lowest attrition rates (2.6%). In comparison to the previous year, the number graduated/program in 2001 has decreased (3.7%). The rate of attrition increased in four of the six regions (Northeastern, Southeastern, Heartland and Western); deceleration decreased in each region. Programs in the Eastern region reported the largest rate of deceleration (3.7%), while programs in the Southeastern and Western regions had the lowest rate of deceleration (1.1%).

The reasons for withdrawal by region are shown in Table 73. Programs in the Midwestern region had the highest percentage of students withdraw for academic reasons (62.5%) while programs in the Heartland region cited academic reasons for withdrawal 34.6% of the time. In the Northeastern region, 26% of the programs cited personal reasons for student withdrawal as compared with 0% in the Midwestern and Heartland regions.

Table 73. Reasons for Withdrawal by Consortia Region

Consortia <u>Region</u>	Reasons for Withdrawal from Program						<u>Total</u>
	<u>Academic</u>		<u>Personal</u>		<u>Other</u>		
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	
Northeastern	23	46.0%	13	26.0%	14	28.0%	50
Eastern	16	50.0%	8	25.0%	8	25.0%	32
Southeastern	12	52.2%	3	13.0%	8	34.8%	23
Midwestern	10	62.5%	0	0.0%	6	37.5%	16
Heartland	9	34.6%	0	0.0%	17	65.4%	26
Western	<u>5</u>	<u>50.0%</u>	<u>2</u>	<u>20.0%</u>	<u>3</u>	<u>30.0%</u>	<u>10</u>
Total	75	47.8%	26	16.6%	56	35.7%	157

Graduation, Attrition, and Deceleration of Students by Age

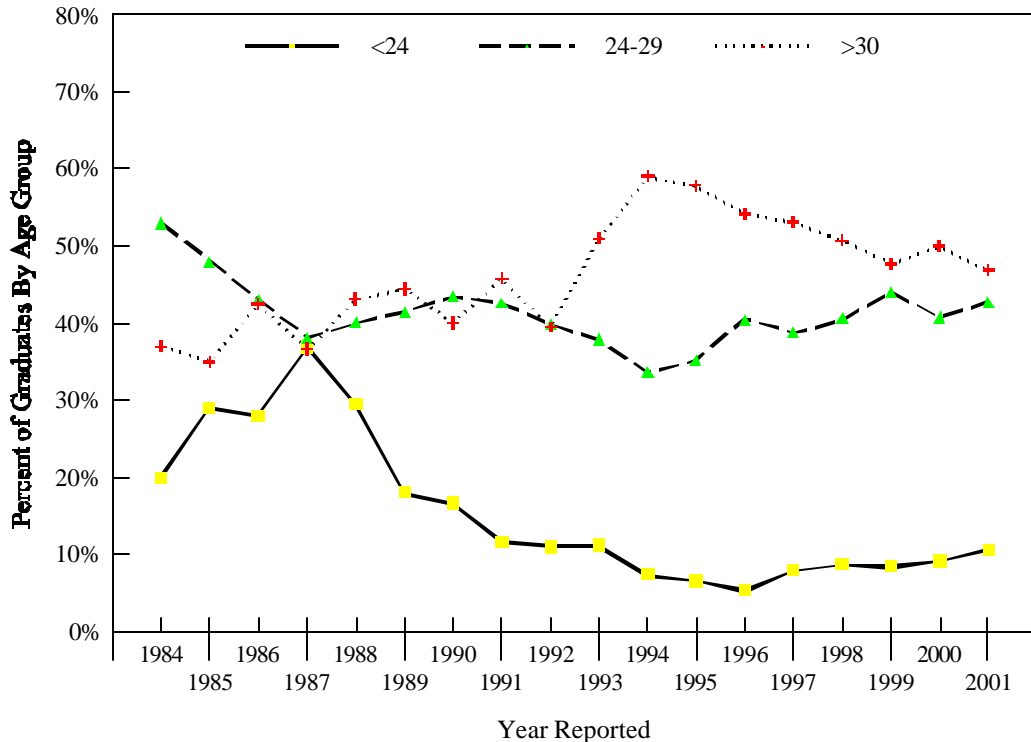
The mean number of graduates, attrition rates, and students decelerated for each age category is shown in Table 74. Almost one-third (33.2%) of the graduates were between the ages of 20 and 26 upon graduation; 47% were 30 years of age or older and none were under the age of 20. Attrition was highest for those between 20 and 23 years of age; lowest for those between 24 and 26. Deceleration rates were highest for students over 33 years of age and least for those under 23 years and for those between 24 and 26.

Table 74. Number Graduated, Decelerated and Attrition Rates of 2001 Graduates by Age

<u>Age at Graduation</u>	<u>N</u>	<u>Number Graduated</u>		<u>Withdrew Prior To Graduation</u>		<u>Attrition Rate</u>	<u>Students Decelerated</u>	
		<u>Mean</u>	<u>%</u>	<u>Mean</u>	<u>%</u>	<u>%</u>	<u>Mean</u>	<u>Rate</u>
Under 20	85	0.0	0.0%	0.0	0.0%	0.0%	0.0	0.0%
20-23	85	3.8	10.6%	0.3	16.7%	7.3%	0.1	1.2%
24-26	85	8.1	22.6%	0.2	11.1%	2.4%	0.1	1.2%
27-29	85	7.2	20.1%	0.2	11.1%	2.7%	0.1	1.3%
30-33	85	6.6	18.4%	0.2	11.1%	2.9%	0.1	1.4%
Over 33	85	10.2	28.4%	0.9	50.0%	8.1%	0.2	1.8%
Total/Program	85	36.8	100%	1.9	100.0%	4.8%	0.9	2.3%

Figure 22 shows the trends in age from 1984 through 2001. The proportion of recent graduates in the youngest age group (<24) has generally decreased over time, with a slight increase over the previous four years. Conversely, the middle age group (24 - 29) has increased 27.1% since 1994. The graduates in the older age group (>30) have decreased 20.7% since 1994.

Figure 22. Trends in the Age of Graduates: 1984 Through 2001



The mean number of graduates, withdrawals, decelerated students and attrition rates for the 2001 graduating class by ethnicity is shown in Table 75. The majority of the recent graduates were White/Non-Hispanic (75.8%), less than one-fourth (24.2%) were minorities.

Table 75. Number and Attrition Rates of 2001 Graduates by Ethnicity

<u>Ethnicity</u>	<u>N</u>	<u>Mean Number Graduated</u>		<u>Withdrew Prior to Graduation</u>		<u>Attrition Rate</u>	<u>Students Decelerated</u>	
		<u>Mean</u>	<u>%</u>	<u>Mean</u>	<u>%</u>	<u>%</u>	<u>Mean</u>	<u>Rate</u>
White/Non-Hispanic	87	28.8	75.8%	1.2	63.2%	4.0%	0.5	1.3%
Black/African-Amer.	87	2.1	5.5%	0.3	15.8%	12.0%	0.1	4.0%
Latino/Hispanic/Mex. Am.	87	2.2	5.8%	0.1	5.3%	4.3%	0.0	0.0%
Asian	87	1.9	5.0%	0.1	5.3%	4.8%	0.1	4.8%
Asian Subpopulations	87	0.4	1.1%	0.0	0.0%	0.0%	0.0	0.0%
Native Haw./Other P.I.	87	0.2	0.5%	0.0	0.0%	0.0%	0.0	0.0%
American Ind./Alaskan	87	0.4	1.1%	0.1	5.3%	20.0%	0.0	0.0%
Other/Unknown	87	2.0	5.3%	0.1	5.3%	4.8%	0.0	0.0%
Total/Program	87	38.0	100.0%	1.9	100.0%	4.8%	0.7	2.3%

Within the minority groups graduating, 22.8% were Black/African-American, 23.9% were Latino/Hispanics, 20.7% were Asian and the remainder were classified as Asian Subpopulation, Alaskan/Native American or Other/Unknown. Sixty percent (N=52) of the 87 programs reported at least one Black/African-American among their 2001 graduates. Fifty-three (60.9%) programs also graduated at least one Latino/Hispanic.

The American Indian/Alaskan students had the highest rate of attrition (20.0%), followed by Black/African-American students (12%). The White/Non-Hispanics had an attrition rate of 4.0%. Proportionately, minority students were more likely to be decelerated, particularly the Asian students (4.8%) as compared to White students (1.3%).

Trends in Student Attrition: 1984 Through 2001

Figure 23 (next page) shows the relative attrition rates from 1984 through 2001 for all students and for white and non-white students. Attrition rates have averaged 7.4% over the past eighteen years, ranging from a high of 14% in 1988 to a low of 3.9% in 1999. The 2001 attrition rate for white students was 4.0% and 6.9% for non-white students; the latter represents a decrease from 2000. Before 1990, decelerated students were included in the attrition rates. If decelerated students were included this year, the adjusted attrition rate would be 6.9%.

Sex and Ethnicity of 2001 P.A. Graduates by Consortia Region

The mean number and proportion of 2001 graduates by gender, ethnicity, and consortia region are shown in Table 76 (next page). Proportionately, more minority students graduated from programs in the Western region (32%) than from programs located in the Midwestern region (10.2%). The Western region had the highest proportion of male graduates (44%) and the Eastern region the highest proportion of female graduates (72%).

Figure 23: Trends in Student Attrition: 1984 Through 2001

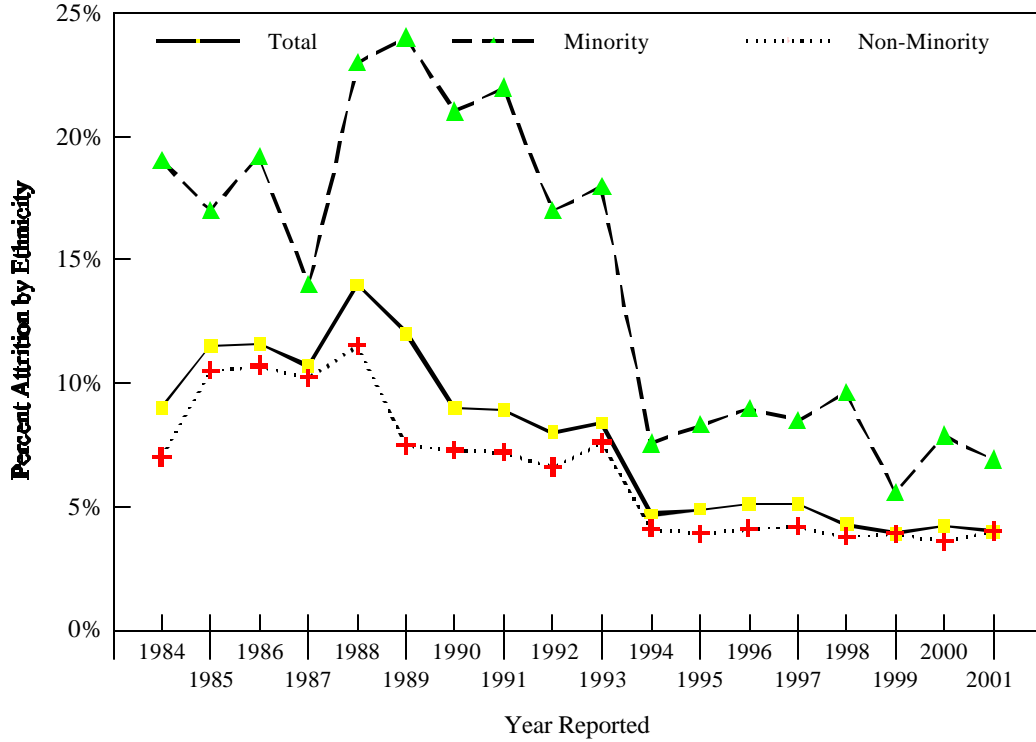


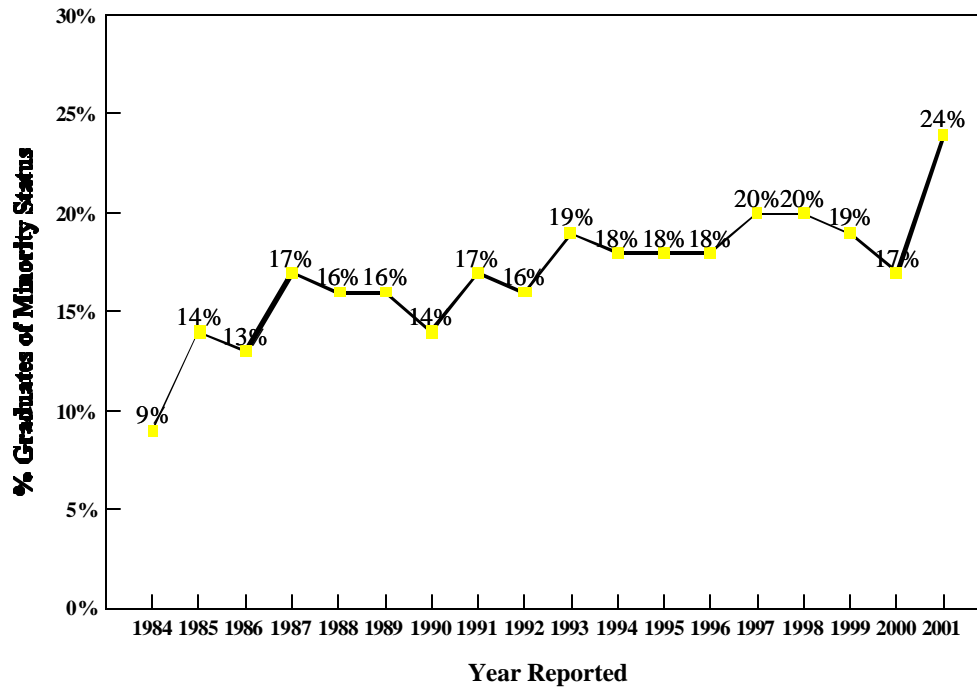
Table 76. 2001 Graduates by Sex, Ethnicity, and Consortia Region

Consortia Region	N	Mean # of Graduates	Gender		Ethnicity				
			Male	Female	White	Black	Hispanic	Asian	Other
Northeastern	20	34.3	31.7%	68.3%	73.8%	9.2%	4.2%	8.2%	4.6%
Eastern	12	36.8	28.3%	71.7%	78.5%	9.2%	2.8%	5.5%	4.0%
Southeastern	13	33.8	37.8%	62.2%	85.7%	3.8%	4.3%	3.6%	2.6%
Midwestern	22	30.4	33.7%	66.3%	89.8%	3.7%	1.9%	3.6%	1.0%
Heartland	8	51.9	32.9%	67.1%	73.7%	3.8%	14.3%	4.8%	3.4%
Western	13	44.8	43.7%	56.3%	68.0%	4.1%	12.3%	6.4%	9.2%
Total	88	36.8	38.3%	61.7%	75.8%	5.5%	5.8%	6.1%	6.8%

Trends in the Graduation of Minorities

The graduation of minority P.A.'s has been monitored since 1984. Figure 24 (next page) shows the proportion of non-white P.A. graduates over the past eighteen years. During the eighteen-year period for which data was available, the graduation of non-white students averaged 16.9%, ranging from a high of 24% in 2001 to a low of 9.0% in 1984. The reader is referred to Figure 18 concerning enrollment of minority students, which over the past nineteen years, has averaged 20% (Table 61).

Figure 24. Trends in Minority P.A. Graduates: 1984 Through 2001



Employment Status of 2001 P.A. Graduates

A summary of the employment status of the recent graduates, as reported by 84 programs, is shown in Table 77. It should be noted that the time elapsed between a program's graduation date and the date the survey was completed varied.

Table 77. Employment Characteristics of 2001 P.A. Graduates

<u>Employment Status</u>	<u>Mean Number Per Program</u>	<u>S.D.</u>	<u>Relative Frequency</u>
Employed:			
As a P.A.	25.1	14.6	59.6%
Not as a P.A.	1.2	0.9	2.9%
Unemployed	4.7	6.3	11.2%
Continued with Education	0.5	1.0	1.2%
Unknown	<u>10.6</u>	<u>10.0</u>	<u>25.2%</u>
Total (N=84)	42.1	29.4	100.0%

The majority (59.6%) of recent graduates were employed as a physician assistant, a 19.6% decrease from 2000 graduates (74.1%). More than one-third of the graduates were either unemployed or their employment status was unknown.

Number of Recent Graduates by State

The number of 2001 graduates, by state, is shown in Table 78 and includes the number of programs reporting from each state. Those states with the largest number of programs are those with the largest number of graduates, e.g., CA, NY, PA, TX. A total of 3,233 students from 88 programs completed their training in 2001. However, if we consider all programs that graduated P.A.'s in 2001 (i.e., 120 programs) we estimate that the total number of graduates would be approximately 4,416 (120 x 36.8).

Table 78. Number of 2001 Graduates by State

<u>State</u>	<u>Number Prog.</u>	<u>Number Grads</u>	<u>State</u>	<u>Number Prog.</u>	<u>Number Grads</u>	<u>State</u>	<u>Number Prog.</u>	<u>Number Grads</u>
AL	2	55	MA	1	32	OH	4	114
AZ	2	99	MD	1	21	OK	1	50
CA	4	260	ME	1	37	OR	1	25
CO	1	31	MI	3	95	PA	10	391
CT	2	86	MN	1	26	SD	1	20
DC	1	29	MO	1	30	TN	1	30
FL	2	96	MT	1	18	TX	6	329
GA	2	72	NC	4	130	UT	1	32
IA	2	55	ND	1	70	VA	1	23
IL	3	97	NE	1	36	WA	1	71
IN	2	51	NJ	1	37	WI	3	65
KS	1	46	NM	1	9	WV	<u>1</u>	<u>39</u>
LA	1	32	NY	15	494			
Total							88	3233

2001 Program Graduates: Employment Status by Consortia Region

The employment of recent graduates varied depending on the region where their program was located. Employment data are shown in Table 79. Programs located in the Southeastern region reported that over 78% of their 2001 graduates had secured employment at the time the program reported. Programs in the Eastern region had the lowest proportion of graduates employed (49.7%). The overall proportion of recent graduates who were unemployed, including the "Other" category, averaged 37.5% across the regions.

Table 79. Employment Characteristics of 2001 Graduates by Consortia Region

<u>Consortia Region</u>	<u>N</u>	<u>Employed</u>		<u>Unemployed</u>		<u>Other</u>		<u>Total Mean</u>
		<u>Mean</u>	<u>%</u>	<u>Mean</u>	<u>%</u>	<u>Mean</u>	<u>%</u>	
Northeastern	18	23.4	66.9%	2.9	7.3%	8.0	23.3%	34.3
Eastern	11	25.9	49.7%	10.7	15.9%	2.2	5.7%	38.8
Southeastern	13	29.9	78.5%	1.4	3.4%	3.5	10.1%	34.8
Midwestern	20	21.3	53.4%	4.2	9.3%	6.2	19.6%	31.7
Heartland	7	44.5	64.7%	4.4	5.7%	4.5	8.4%	53.4
Western	<u>11</u>	<u>25.4</u>	<u>63.1%</u>	<u>4.4</u>	<u>7.5%</u>	<u>16.0</u>	<u>34.9%</u>	<u>45.8</u>
Total	80	26.3	62.5%	4.7	11.2%	11.1	26.4%	42.1

Trends in Medical Specialty Selection of Recent Graduates, 1985 Through 2001

A comparison of the employment of recent graduates in primary and non-primary care medicine from 1985 through 2001 is shown in Table 80 and illustrated in Figure 25 (primary care includes F.M., G.I.M., Ob/Gyn, Peds)(next page). From 1985 through 1989 there was an overall decrease in the proportion of graduates entering primary care practice, from 60% in 1985 to a low of 47% in 2001. In the past seventeen years an average of 55% of the graduates have selected primary care medical specialties.

Table 80. Employment of Recent Graduates in Primary and Non-Primary Care Medicine, 1985 Through 2001

Academic Year	Primary Care		Non-Primary Care		Total	
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
1985-1986	399	59.9%	278	41.1%	677	100%
1986-1987	404	55.6%	322	44.4%	726	100%
1987-1988	418	56.4%	323	43.6%	741	100%
1988-1989	422	52.2%	387	47.8%	809	100%
1989-1990	398	48.2%	427	51.8%	825	100%
1990-1991	508	58.1%	367	41.9%	875	100%
1991-1992	511	53.5%	444	46.5%	955	100%
1992-1993	674	55.7%	537	44.3%	1211	100%
1993-1994	826	58.0%	597	42.0%	1423	100%
1994-1995	852	55.5%	684	44.5%	1536	100%
1995-1996	817	52.2%	702	44.8%	1566	100%
1996-1997	970	62.3%	588	37.7%	1558	100%
1997-1998	1046	56.9%	792	43.1%	1838	100%
1998-1999	1113	54.5%	928	45.5%	2041	100%
1999-2000	1176	53.7%	1015	46.3%	2191	100%
2000-2001	1143	53.9%	977	46.1%	2120	100%
<u>2001-2002</u>	<u>1014</u>	<u>46.5%</u>	<u>1166</u>	<u>53.5%</u>	<u>2180</u>	<u>100%</u>
17-Yr. Mean	734	55.3%	605	44.7%	1339	100%

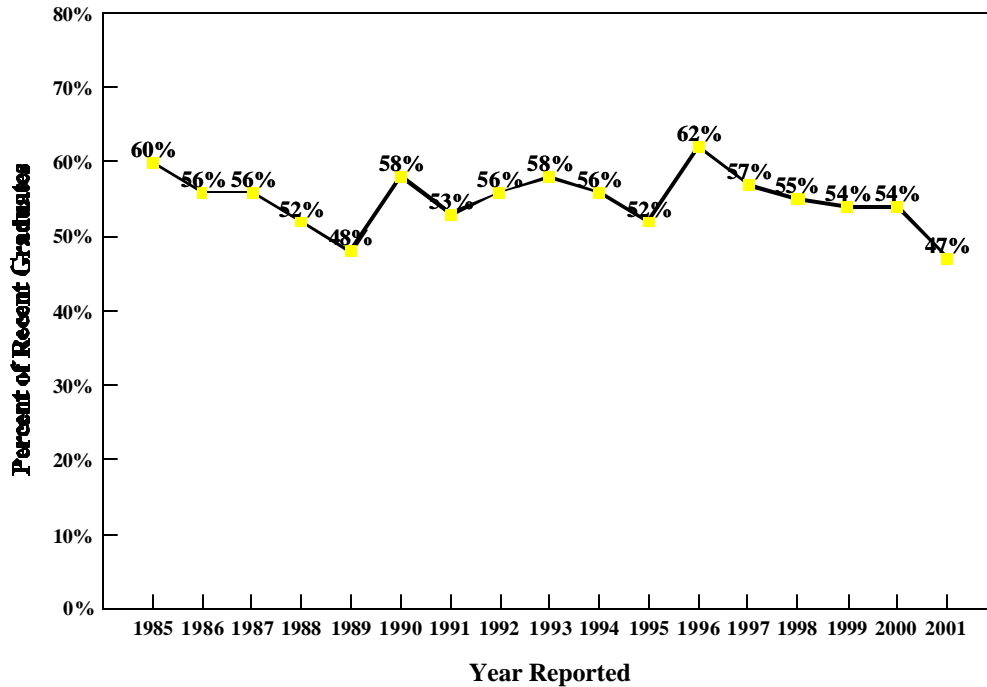
Employment of Recent Graduates in Primary and Non-Primary Care by Consortia Region

The relative proportion of 2001 graduates entering primary and non-primary care medical specialties by region is shown in Table 81. Graduates from programs in the Western region had the highest level of employment in primary care medical specialties (65.3%). Graduates from the Northeastern region had the highest level of employment in non-primary care specialties (60.9%).

Table 81. Employment of 2001 Graduates in Primary and Non-Primary Care Medicine by Consortia Region

Consortia Region	<u>N</u>	Primary Care		Non-Primary Care	
		<u>Mean</u>	<u>%</u>	<u>Mean</u>	<u>%</u>
Northeastern	19	8.4	39.1%	13.1	60.9%
Eastern	12	9.8	51.0%	9.4	49.0%
Southeastern	13	11.0	51.9%	10.2	48.1%
Midwestern	20	8.2	51.6%	7.7	48.4%
Heartland	7	11.0	55.3%	8.9	44.7%
Western	<u>11</u>	<u>16.9</u>	<u>65.3%</u>	<u>9.0</u>	<u>34.7%</u>
Total	82	10.3	46.5%	11.0	53.5%

Figure 25. Recent Graduate Employment in Primary Care: 1985 Through 2001



The distribution of recent graduates selecting primary care medical specialties from 1992 through 2001 is shown in Table 82. Over the period analyzed, family medicine and general internal medicine remained the primary care specialties of choice. This year, general pediatrics increased and general internal medicine decreased. The ten-year average was 72% for family medicine and 17% for general internal medicine. The selection of both obstetrics and gynecology and pediatrics also varied over time, ranging from 3.1% to 6.7% and 4.6% to 9.2%, respectively.

Table 82. Trends in the Primary Care Medical Specialty Selection of Recent Graduates, 1992 Through 2001

	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>
Clinical	(51)*	(53)	(48)	(56)	(57)	(68)	(74)	(77)	(76)	(82)
<u>Specialty</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
Fam Md	71.1	71.0	76.0	75.4	73.1	73.2	75.1	74.9	67.3	67.4
Int Med	16.3	15.1	16.0	15.4	16.9	17.7	16.3	14.8	21.5	17.0
Gen Ped	5.9	8.4	4.6	5.2	6.4	5.3	5.6	6.8	5.5	9.2
Ob/Gyn	6.7	5.5	3.4	3.1	3.6	3.8	3.0	3.4	5.7	6.4

* Number of Programs responding

Trends in the graduates' selection of non-primary care medicine over the past ten years shown in Table 83 (next page). Surgery (plus sub-specialties) and emergency medicine accounted for over two-thirds of the positions (71.2%) selected by recent graduates in non-primary care.

Table 83. Trends in the Non-Primary Care Medical Specialty Selection of Recent Graduates, 1992 Through 2001

	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>
Clinical	(51)*	(53)	(48)	(56)	(57)	(68)	(74)	(77)	(76)	(82)
<u>Specialty</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
Surgery	47.4	36.2	35.5	33.0	34.1	35.1	36.2	31.4	40.4	38.6
Med	22.6	35.4	25.1	29.4	30.6	29.1	28.4	23.3	18.6	22.4
Em Med	25.6	23.1	37.0	33.2	28.7	32.3	33.3	37.7	36.5	32.6
Psych.	1.6	0.9	1.1	0.8	1.0	1.5	0.7	3.3	2.1	2.7
Ind Med	2.8	4.4	1.3	3.6	5.6	2.0	1.4	4.3	2.4	3.7

* Number of Programs responding

A list of the specific internal medicine subspecialties selected by 2001 graduates is shown in Table 84, along with the number of graduates and programs represented. A total of 426 recent graduates from eighty-two programs were employed among the subspecialties. It should be noted that one of the armed services programs defined their graduate employment as "military medicine". Otherwise, the largest number of recent graduates selected cardiology (n=80; 41 programs) and oncology (n=33; 20 programs).

Table 84. Internal Medicine Subspecialties Selected by 2001 Graduates

<u>Medical Area</u>	<u># of Graduates</u>	<u># of Programs</u>	<u>Medical Area</u>	<u># of Graduates</u>	<u># of Programs</u>
Military Medicine	181	1	Dermatology	41	27
Cardiology	80	41	AIDS/Inf. Diseases	12	11
Oncology	33	20	Other	<u>55</u>	<u>32</u>
Gastroenterology	24	19	Total	426	82

A list of surgical subspecialties selected by the recent graduates is in Table 85. A total of 207 recent graduates from eighty-two P.A. programs selected surgical sub-specialty areas as their first position. Proportionately, these graduates were employed most commonly in cardiovascular/cardiothoracic surgery (n=50; 24%) and neurosurgery (n=45; 22%).

Table 85. Surgical Subspecialties Selected by 2001 Graduates

<u>Surgical Area</u>	<u>Number of Graduates</u>	<u>Number of Programs</u>	<u>Surgical Area</u>	<u>Number of Graduates</u>	<u>Number of Programs</u>
CV/CT	50	21	Plastic	13	11
Neurosurgery	45	25	Organ Transplant	3	2
Orthopedics	42	18	Other Surg. Spec.	<u>54</u>	<u>21</u>
			Total	207	82

Medical Specialty Selection of Recent Graduates by Consortia Region

A comparison of medical specialty selection of recent graduates by consortia region is shown in Table 86 (next page). The data are presented as the mean number of recent graduates per program employed in each area. Medical specialties in which the largest proportion of recent graduates was employed is shown and include, family medicine, internal medicine (including subspecialties), and surgery (including subspecialties).

Table 86. Medical Specialties Selected by 2001 Graduates by Consortia Region

<u>Consortia Region</u>	<u>N</u>	<u>Family Medicine</u>		<u>Internal Medicine*</u>		<u>Surgery*</u>	
		<u>Mean</u>	<u>%</u>	<u>Mean</u>	<u>%</u>	<u>Mean</u>	<u>%</u>
Northeastern	19	6.4	39.8%	4.8	29.8%	4.9	30.4%
Eastern	12	8.6	52.8%	3.9	23.9%	3.8	23.3%
Southeastern	13	9.1	55.2%	4.7	28.5%	2.7	16.4%
Midwestern	20	12.0	62.8%	3.9	20.4%	3.2	16.8%
Heartland	7	24.5	72.9%	6.0	17.9%	3.1	9.2%
Western	<u>11</u>	<u>14.8</u>	<u>75.5%</u>	<u>3.0</u>	<u>15.3%</u>	<u>1.8</u>	<u>9.2%</u>
Total	82	11.2	59.3%	4.3	22.8%	3.4	18.0%

* Includes the sub-specialties

Note, the "other" category is not included in the table. Graduates from the Western region selected family medicine preferentially (75.5%) and those from the Northeastern region had the least percentage entering family medicine (39.8%). Conversely, graduates from programs in the Northeast selected surgery (30.4%) and internal medicine (29.8%) more frequently than did graduates from other regions.

Regional Variation and Trends in New Graduate Starting Salaries

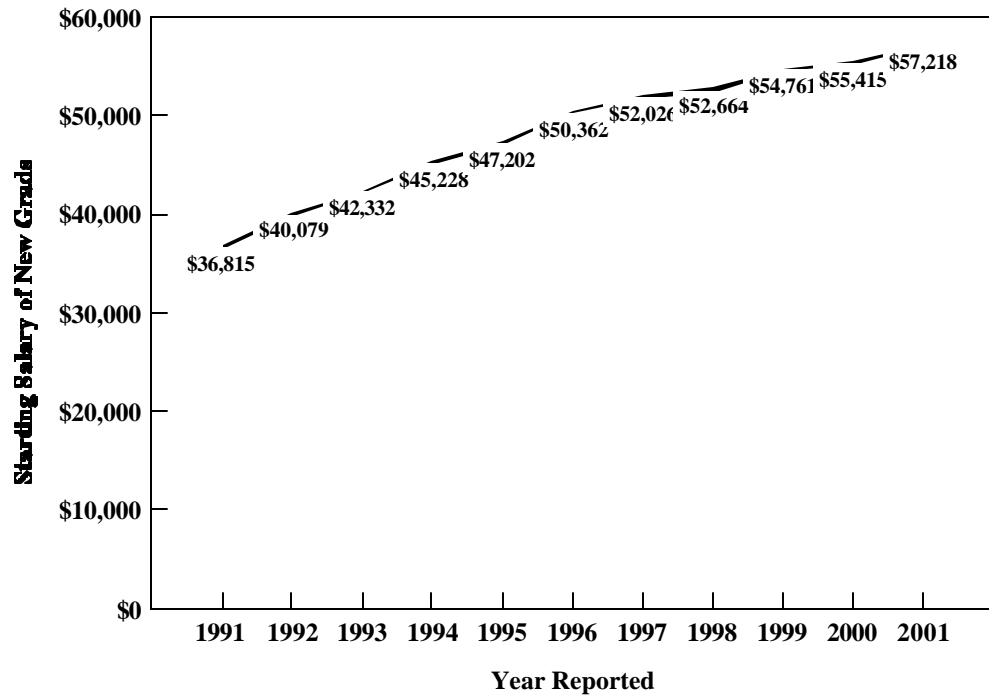
Table 87 shows the estimated starting salary of recent graduates in 2001 by region. The overall average was \$57,218, an increase of 3.3% from the 2000 average of \$55,415. Mean salaries were above \$55,000 for graduates from programs located in all but the Western region. The median starting salary was highest for those graduates from programs located in the Southeast.

Table 87. Program Directors' Perceptions of Starting Salaries for P.A. Graduates by Consortia Region

<u>Consortia Region</u>	<u>N</u>	<u>Mean</u>	<u>Median</u>	<u>Change from 2000</u>
Northeastern	17	\$56,153	\$56,000	+ 2.5%
Eastern	9	\$55,713	\$55,000	+ 4.6%
Southeastern	11	\$59,549	\$60,000	+ 4.4%
Midwestern	20	\$58,343	\$58,000	+ 2.7%
Heartland	8	\$58,375	\$58,000	+ 6.5%
Western	<u>8</u>	<u>\$54,000</u>	<u>\$55,000</u>	<u>- 0.8%</u>
Total	73	\$57,218	\$57,691	+ 3.3%

Salaries of graduates from programs located in the Heartland region marked the greatest increase from 2000 (6.5%), while programs in the Western region reported a decrease of 0.8% from 2000. These data are also shown in Figure 26 (next page). Thus, starting salaries have increased each year by an average of 4.5% and there has been an overall increase in salaries of 55.4% since 1991.

Figure 26. Trends in Starting Salary for New Graduates: 1989 Through 2001



SUMMARY AND CONCLUSIONS

This report presents an update of physician assistant educational programs in the United States for the 2001-2002 academic year. This is the eighteenth annual report to be published since 1984 and is based upon data drawn from the 2001 national survey of P.A. programs and includes APAP member programs and those enrolling students for the first time in 2001. Two surveys were administered. Survey #1 was mailed in October to 130 programs. The response rate for survey #1 was 86.2% (112 programs). The second survey was also mailed in October, with a return of eighty-eight surveys. Highlights of the findings are provided in this summary and includes a description of the "typical" P.A. program. Comparisons were also made across programs by consortia region.

As we have data extending from 1984, we were able to also examine trends which have occurred over the past sixteen years for certain variables. Trends were analyzed relative to program budget and student expenses, personnel salaries and turnover, curriculum and interdisciplinary education, applicant, student and graduate characteristics, and salaries for recent graduates.

SECTION I. General Characteristics of P.A. Programs

The majority of programs (N=118; 90.8%) were associated with either a University or 4-year College. Seventy programs (54%) awarded graduates a master's degree and forty-four (34%) awarded graduates a baccalaureate degree; the remainder awarded either an associate degree or only a certificate of completion. The majority (N=79; 60.8%) of the current P.A. Programs were established since 1989; thirty-seven percent of the programs were established in the period 1969 through 1976, an average of 5.5 programs/year. From 1977 through 1988 (12 years) only three new programs were developed. The "typical" P.A. curriculum was 26.2 months in length and ranged from 12 to 36 months. The majority of programs graduated their seniors over two periods, between May-June (N=45) and August-September (N=61).

P.A. programs received the majority of their financial support from the sponsoring institution, averaging \$504,324 (58% of the budget) and federal training grants, averaging \$154,834 (18% of the budget). Thirty-three programs (33%) reported they received federal training grant support in 2001-2002. The average cost per program to educate a P.A. student was estimated to be \$11,500/student/year, a figure derived by dividing the total budget by the total number of students enrolled. This value does not include other costs, for example, clinical preceptors and other educators whose wages are not included in the program's budget. Programs located in the Western region had the highest total budget (\$1,214,475 per program). Programs located in the Northeastern region had the highest level of federal training grant support (\$266,800 per program). Programs in the Heartland region had the lowest total budget, averaging \$609,985 per program. Programs in the Heartland region had the lowest level of federal training grant support (\$106,984).

The typical resident student paid an average of \$32,810 for tuition, books, fees, and equipment for their entire professional education in a P.A. program, the non-resident student paid \$40,310. Eighty-eight percent of the students received financial aid averaging \$17,315 per student per year. Students enrolled in programs located in the Eastern region had the highest resident tuition (\$37,048/student/curriculum), while programs in the Heartland region had the lowest resident tuition (\$13,425/student/curriculum).

Ninety-one percent of the students in programs located in the Eastern region received financial aid, while 82% of the students in the Midwestern region received financial aid. For all students enrolled in 2001, only 40 (1st year students) and 46 (2nd year students) were awarded support from any of the several types of Public Health Service Corps Scholarships.

Trends from 1984 Through 2001

Total program budget increased an average of 8.1% annually from 1984 through 2001, a total increase of 216% over the past eighteen years. During this period, institutional support for the typical program increased an average of 7% per year, while federal training grant support remained relatively unchanged (18 year mean=\$154,834) and accounted for an average of 18% of the total program budget (41% in 1985 down to 14% in 2000). Since 1984, both tuition and total student expenses have increased by over 295% while the proportion of students receiving financial assistance has increased to 88%. Since 1986, the amount of financial aid provided to students has increased by 348%, from \$3,866/student/year to \$17,315/student/year in 2001.

SECTION II. Program Personnel

In order to conduct an analysis of P.A. program personnel, the faculty and staff were divided into three major groups as follows: (1) program directors, (2) medical directors and (3) those faculty and staff associated with the educational and/or administrative aspects of the program (referred herein as program personnel). The latter group was subdivided on the basis of whether they were P.A.'s or non-P.A.'s and organized across four categories (I, II, III, IV) based on job titles and program responsibilities.

The typical P.A. program employed one medical (0.36) and one program director (0.965) and, on average, 3.8 P.A. credentialed and 1.1 non-P.A. faculty, and 2.3 Category IV personnel. Thus, the "core" personnel for the typical program amounted to approximately 8.525 FTE's including clerical and/or other types of support personnel. General characteristics were reported for directors and program faculty and staff, including, percent time working with the program, months in position, annual salary, highest degree held, academic classification and tenure track status, gender, and ethnicity. Annual salary was shown to vary by job category, consortia region, gender, ethnicity, academic classification, and highest degree held.

In comparison to the Category I - III personnel data gathered in 2000-2001, salaries for P.A. program personnel increased by 2.4% and decreased by 3.4% for non-P.A.'s. Eighty-three percent of the Cat I - III personnel were classified as faculty. Twenty-nine percent were on a tenure track and 21.5% of the tenure track faculty were tenured. Fifty-nine percent of the Category I - III program personnel had earned a masters degree and 11% held a doctorate as their highest degree.

On average, 71% of the P.A. credentialed staff and faculty (including program directors) provided 11 hours per week of clinical practice in addition to their educational activities. Eighty-eight percent were paid for their clinical service which averaged \$36.43 per hour. Clinical earnings accounted for 28.9% of their salary.

In comparison to the 2000 data, the proportion of program directors who were credentialed as P.A.'s decreased from 83% to 82%, salaries increased by 4.9% and months in position remained about the same (76 months). The majority of program (91%) and medical (84%) directors were classified as faculty and were on a tenure track. Less than one-fifth were tenured. Thirty-five percent of the program directors had doctoral-level degrees (typically the Ph.D. or Ed.D.). Since 1984, there has been a 123% increase in mean salary for program directors and 71% increase for medical directors. The time in position for both medical and program directors has fluctuated extensively over the eighteen year period.

Respondents also provided data on personnel turnover over the past year. For the period September 2000 through August 2001, turnover averaged 1.1 individual per program. Turnover across all programs was highest among Category I personnel (36/year) and lowest among Category III personnel. Six program director positions were filled during this period. Departing personnel had been in their positions an average of 46 months, those filling the position were in their previous position 36 months and were typically five years older than their predecessors.

Vacated positions were filled within 8.6 weeks and were filled by individuals with similar academic and personal characteristics as those departing. The three primary reasons cited for the departure of personnel included, in descending order, return to clinical practice, career advancement and termination. In this past year, the salary of those filling the vacated position was 7.2% less than the salary of the person leaving the position.

SECTION III. P.A. Applicant and Student Characteristics

In 2001, the average size of the entering P.A. class was 39.2 students, 67% of whom were women. The senior class averaged 35.8 students per program with 9.3% of the maximum capacity of the class unfilled (due largely to attrition from the program). The typical program received 166 applications and reported a ratio of 4.3 applicants to students enrolled. Using the mean values of the responding programs, the total enrollment (all classes) across all 105 programs was estimated to be 8,256 (124 more students than the previous year). Similarly, the estimated first-year enrollment was 4,116 students with only 2.7% enrolled as part-time students. Programs located in the Western region had the largest number of applicants (202/program). The Heartland region had the largest number of students enrolled (48.8/program). Programs in the Eastern region had the smallest number of applicants (124.6/program). Programs in the Midwestern region had the fewest number of students enrolled (33.1/program).

The typical entering student was described as a white/non-Hispanic female, 28 years of age, with a grade point average of 3.40 and 43 months of health care experience prior to admission.

The proportion of minority students enrolled in the first-year class has increased from 13.8% in 1983-84 to 22.7% in the current year, with the majority of these students in the Black/African-American ethnic group. All but seven programs reported that at least one minority student was enrolled in the 2001 class.

Although there was relatively little change in the number of applicants and students enrolled between 1984 and 1989, the number of applicants and students enrolled from 1989 to the 1995 increased substantially, 325% and 52%, respectively, during that period. The number of applicants has decreased by 60.5% since 1995 (420/program to 166/program)

Information was also obtained on the number of unlicensed medical graduates (U.S.-born and alien) applying to and enrolling in P.A. programs during 2001. The total number of UMG applicants increased from 256 (3.6/program) in 2000 to 360 (4.3/program) in 2001. UMG enrollment has decreased from 140 (1.49/program) in 2000 to 86 (0.98/program) in 2001. On average, 24% of the UMG applicants were admitted in 2001.

Almost one-half (42.2%; 35/83) of the programs received an UMG application while 35.2% (31/88) of the programs enrolled an UMG in 2001. In a broader perspective and with respect to the total applicant pool, UMG's accounted for only 1.9% of the total number of applicants and 1.4% of all students enrolled in the 2001 class.

Programs located in the Western region accounted for the majority of UMG applicants, averaging 10.5/program, while programs in the Eastern region only received an average of 1.18/program. Programs in the Midwestern region enrolled the highest proportion (1.79/program) of UMG's, while programs in the Eastern region enrolled 0.4/program UMG's in 2001.

SECTION IV. Graduate Information

The average size of the 2001 graduating class was 36.8/program and was highest for programs located in the Heartland region (51.9/program) and lowest in the Midwestern region (30.4/program). The majority of recent graduates were female (62%) and non-minority (76%). The attrition rates across programs averaged 4.8% (1.9 students per program) and the reasons for withdrawal were most frequently due to academic (48%). The attrition rate reported in 2001 was higher than the previous year (4.2%). Attrition was highest among minorities and younger students. Students from programs in the Eastern and Northeastern regions had the highest attrition rate (6.6%) and those from programs in the Western region the lowest attrition (2.6%).

On average, 0.9 student per program was decelerated for a deceleration rate of 2.3%. These students were not considered "withdrawn" and therefore not included in the attrition figures. Deceleration occurred more frequently among minorities and older students. The highest deceleration rates were reported by programs located in the Eastern region (3.7%) and lowest for programs in the Southeastern and Western region (1.1%).

The proportion of 2001 graduates employed in primary care specialties increased slightly from the previous year (46.5% versus 53.9% in 2000) and those so employed remained principally in family medicine or general internal medicine. The most common non-primary care specialties selected by recent graduates were surgery (including subspecialties) and emergency medicine. The most common medicine subspecialties were cardiology and oncology, while cardiothoracic and cardiovascular surgery were the most common surgical specialties selected.

Based on responses from program directors, starting salaries continued to increase, averaging \$57,218, 3.3% above that reported for the 2000 academic year (\$55,415). Programs in the Southeastern region had the highest percent of employment (78.5%) while programs in the Eastern region had the lowest percent of employment of recent graduates.

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