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APPENDIX:

Seventeenth Annual A.P.A.P. National Survey For The 2000-2001 Academic Year

SEVENTEENTH ANNUAL REPORT ON PHYSICIAN ASSISTANT EDUCATIONAL PROGRAMS
IN THE UNITED STATES, 2000-2001

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, 2000, there were 126 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 2000, to 126 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 four pages in length, was mailed in November and requested information on:

- A. Graduate Information: includes information on student attrition and deceleration, characteristics of recent graduates, starting salary for recent graduates and the board pass rate 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" last year, allowing the member programs to enter data directly over the Internet, facilitating the collection and analysis of data. Fifty-four programs (54% of the Survey #1 respondents) submitted their program's data via this method for Survey #1.

Survey Period and Response Rate

Survey #1 was mailed (10/3/2000) to 126 P.A. programs, including four programs enrolling students for the first time in the 2000-2001 academic year. An initial deadline of November 15, 2000 was established. A total of 105 responses were received for a response rate of 83.3%.

The second survey was mailed upon receipt of survey #1. If survey #1 was not received by the deadline, a follow-up letter was mailed, which included a copy of survey #2. Seventy-nine 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 92.9%.

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 102, 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 126 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: 1984-2000

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=28) 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=28):

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

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

EASTERN CONSORTIUM (N=18):

Maryland, Pennsylvania, District of Columbia

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

SOUTHEASTERN CONSORTIUM (N=21):

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

Alderson-Broadus College	Emory University	South College
Barry University	James Madison University	Trevecca Nazarene University
College of Health Science	Medical College of Georgia	Univ. of Alabama - Birmingham
College of West Virginia	Medical Univ South Carolina	University of Florida
Duke University	Methodist College	University of Kentucky
East Carolina University	Miami-Dade Community College	University of South Alabama
Eastern VA Medical School	Nova Southeastern University	Wake Forest 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	University of Nebraska	University of Texas/San Antonio
Interservice PA Program	Univ. of North Texas Hlth Sci Cent	University of Texas/SW Med Ctr
Louisiana St. University	University of Oklahoma	Wichita State University
Texas Tech University	University of Texas/Galveston	
Union College	University of Texas/Pan Am	

WESTERN CONSORTIUM (N=20):

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

AZ School of Hlth Sci	Red Rocks Community College	University of New Mexico
Charles Drew Univ	Riverside Community College	University of Saint Francis
Loma Linda University	Rocky Mountain College	Univ of Southern California
Idaho State Univ	Samuel Merritt College	University of Utah
Midwestern University	Stanford University	University of Washington
Oregon Hlth Sci Univ	Univ of California - Davis	Western Univ. of Hlth Science
Pacific University	University of Colorado	

Nonrespondents to neither Survey #1 nor Survey #2; N=9

The above listing is based upon the APAP Consortium guidelines. Each program responded as to which consortia they belonged. The geographic distribution of the 126 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 (67%) or 4-year college (24%). Eight programs were associated with a two-year college; three programs were sponsored by a hospital and one

was sponsored by the armed services. The number of programs awarding a masters degree was the same as the number awarding a baccalaureate degree upon graduation, N=54; 42.86%. The remaining programs (N=18; 14%) awarded either a certificate or an associate degree as the highest credential granted. Over the past 5 years, twenty-six baccalaureate programs converted to masters programs, three programs converted from a certificate to a masters degree and one program converted from an associate to certificate program. 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	84	66.67	Master	54	42.86
4-Year College	30	23.81	Baccalaureate	54	42.86
Community College	8	6.35	Associate	5	3.97
Hospital**	3	2.38	Certificate	13	10.32
Military**	1	0.79			
Total	126	100.00		126	100.00

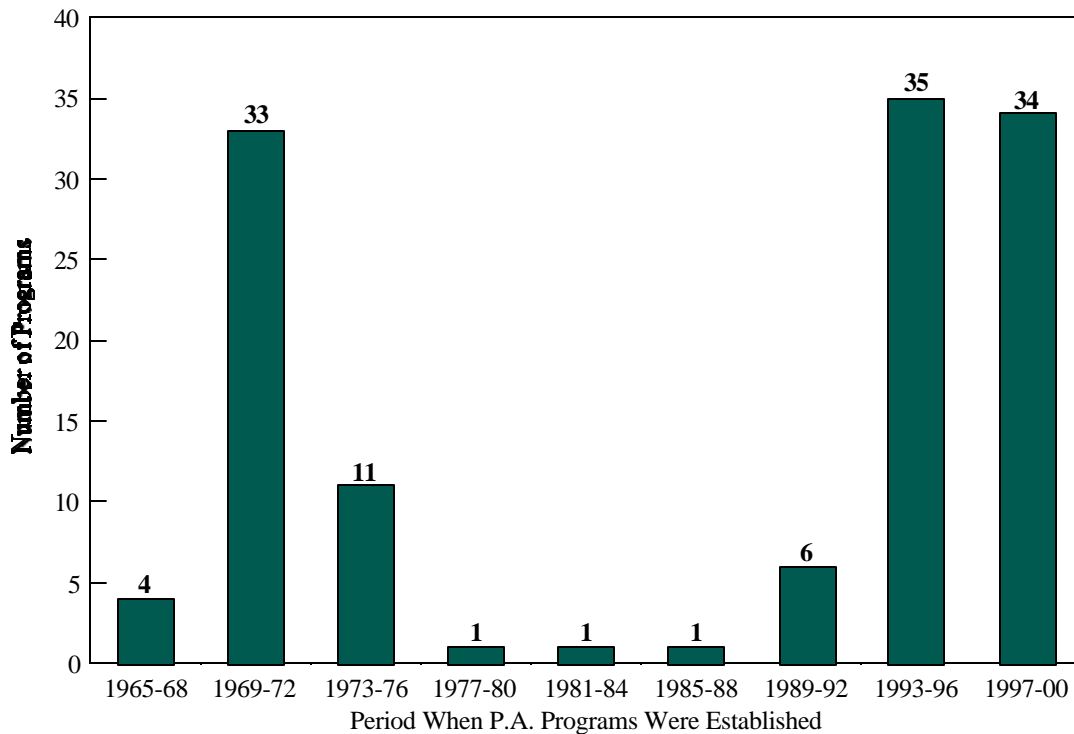
* Nonrespondent information was drawn from APAP.

** Degrees granted from University/College Affiliates.

Year Current P.A. Programs Were Established, 1965 Through 2000

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



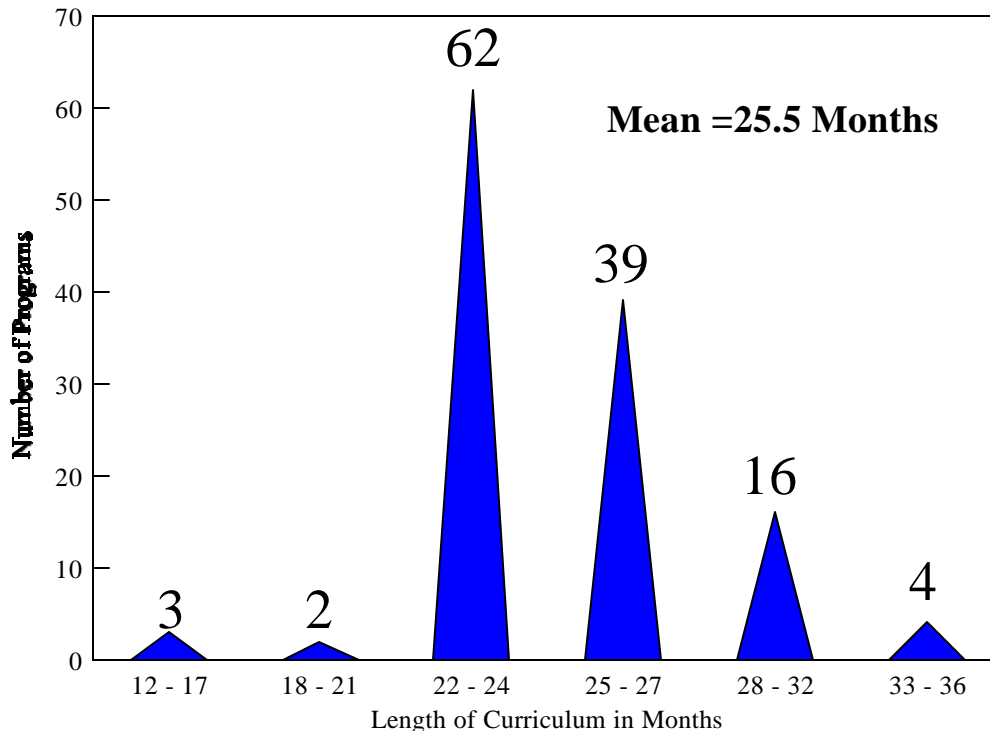
One hundred twenty-six programs are represented, as the data for the nonrespondent programs were obtained from previous Report surveys or the Accredited Physician Assistant Programs² from AAPA/APAP. The first P.A. program was established in 1965 at Duke University Medical Center and over the next four 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.

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 25.5 months (N=126) 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 (39) 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 25.5 months represents a decrease of 2.3% from last year. Non-respondent information was obtained from the APAP Program Directory⁽¹⁾.

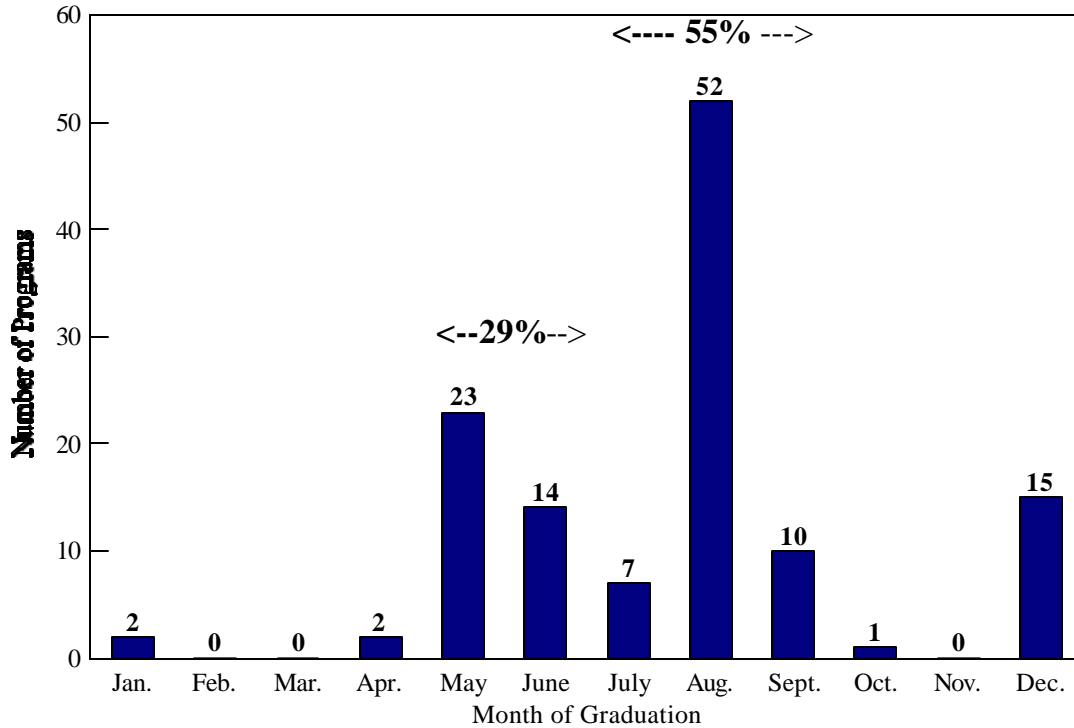
Figure 3. P.A. Programs by Length of Curriculum (N=126)



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 2000 P.A. Program Directory⁽¹⁾.

Figure 4. P.A. Programs By Months of Graduation (N=126)



Currently, a majority (N=106; 84.1%) of programs graduate students over two periods, (a) between May and June (N=37; 29.4%) and (b) July, August and September (N=69; 54.8%). 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=66) reported support from more than one source, for example, 34 programs reported two sources, 23 programs three sources, 5 programs four sources and 4 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=89) of programs was the sponsoring institution, providing an average of \$487,739/year/program (S.D.=\$293,874). Ten programs reported that they received no financial support from their sponsoring institution. Thirty-nine respondents indicated that they received substantial support from student tuition and fees paid directly to the program (mean=\$767,404, S.D.=\$741,515). Sixty 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	\$487,739	\$483,000	\$ 25,000 - 2,428,000	89	10
Tuition and Fees (Retained by Program)	\$767,404	\$565,000	\$ 5,000 - 2,893,000	39	60
<u>External</u>					
Federal Grants	\$123,055	\$116,712	\$ 16,000 - 285,000	31	68
State Grants	\$148,900	\$142,000	\$ 1,000 - 298,000	10	89
Foundations	\$ 55,750	\$ 10,000	\$ 2,000 - 277,000	8	92
Private Donation	\$ 19,000	\$ 5,000	\$ 1,000 - 80,000	7	92
Industry	\$ 39,000	\$ 10,000	\$ 3,000 - 104,000	3	96
A.H.E.C. Support	\$ 28,364	\$ 20,000	\$ 2,000 - 86,000	11	88
Other	\$127,429	\$ 50,500	\$ 2,000 - 978,000	14	85
Total Program Support	\$871,824	\$708,000	\$133,100 - 3,469,000	99	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-one programs (31% of the respondents to this item) received federal funds during the 2000-2001 fiscal year. The amount of federal support ranged from \$16,000 to \$285,000, averaged \$123,055 per program (S.D.=\$62,866) and accounted for 14.1% of the total budget, lower than the figure (19.8%) reported last year. Sixty-eight programs indicated they did not receive federal grant support in 2000-2001. In addition to federal training grants, ten programs indicated they received state grants averaging \$148,900 per year and fourteen programs reported financial assistance received from other sources (e.g., rate appeals, teaching contracts, hospitals, training grant, clinical service, scholarships and Title III) averaging \$127,429 per program.

The total annual financial support from all sources for the 99 programs reporting averaged \$871,824 per program (median=\$708,000; S.D.=\$612,234). 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 ($r = 0.61$; $p < .001$) and the other utilizing the sum of F.T. and 1/2 of the part-time (P.T.) students ($r = 0.59$; $p < .001$). 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 = (621.673) + (3.25 x # F.T. students enrolled) (in \$1,000's)

(b) Total Program Budget = (618.308) + (3.27 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 \$784,173 per year while equation "b" predicts, for a program with 50 F.T. and 10 P.T. students, a budget of \$798,158/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 2000 academic year, the cost for the typical program was approximately \$11,064 to educate each student (mean budget of \$871,824 divided by an average enrollment of 78.8 students/program). This figure is 12.1% higher than in the previous year.

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 (\$1,215,996/program). The most federal grant support was located in the Northeastern region, averaging \$188,500/program. Programs in the Heartland region reported the smallest total budget (\$604,000/program). Programs in the Heartland region also had the least amount of support from federal training grants (\$67,500/program). The proportion of total program budget derived from federal funds was lowest (11%) in the Southeastern region, while programs in the Northeastern region derived over one-fifth of their total budgets from federal sources.

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

<u>Consortia 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	21	\$ 901,857	\$562,263	\$188,500	\$ 91,500	20.9%	2	19
Eastern	14	\$ 834,276	\$623,242	\$134,356	\$ 17,644	16.1%	2	12
Southeastern	16	\$ 928,363	\$618,928	\$102,250	\$ 42,151	11.0%	4	12
Midwestern	21	\$ 760,095	\$710,286	\$113,444	\$ 37,152	14.9%	9	12
Heartland	13	\$ 604,000	\$203,123	\$ 67,500	\$ 35,901	11.2%	6	7
Western	14	\$1,215,996	\$587,261	\$166,750	\$ 63,945	13.7%	8	6
Total	99	\$ 871,824	\$612,234	\$123,055	\$ 62,866	14.1%	31	68

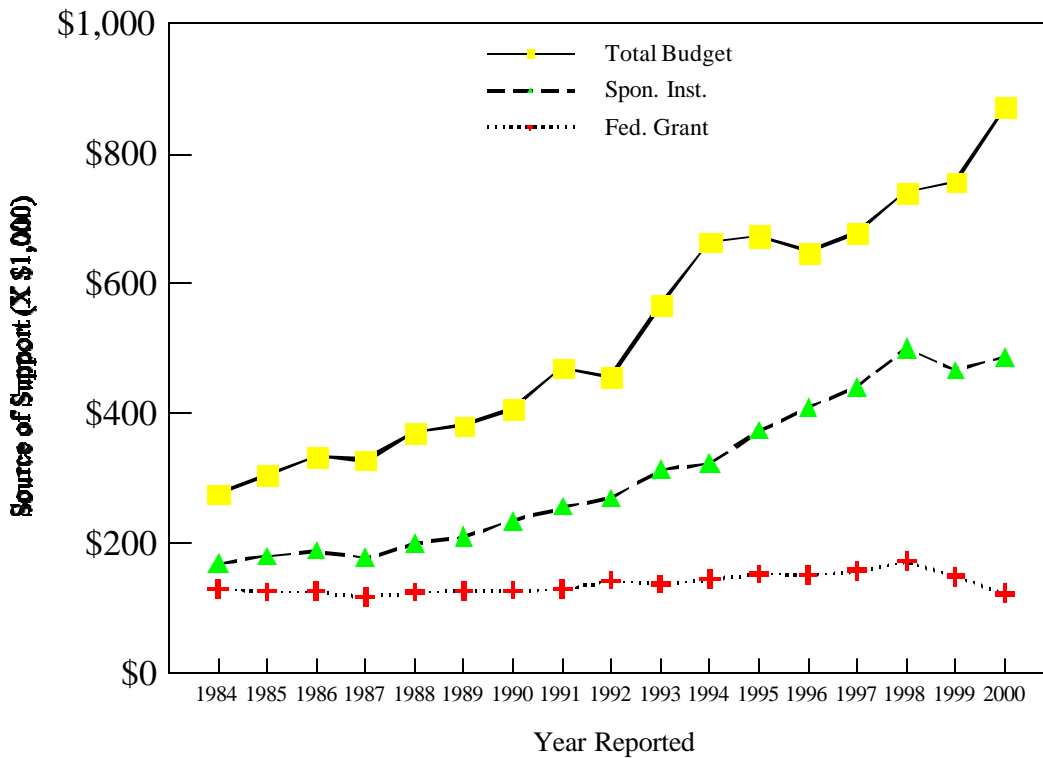
Trends in P.A. program support from 1984 through 2000 are shown in Table 5 and shown graphically in Figure 5 (next page). The total budget column is not a summation of institutional and federal grant support.

Table 5. Trends in Physician Assistant Program Support, 1984 Through 2000

<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%

The total budget for 2000 increased by \$114,878 from the previous year. The level of training grants accounted for 14% of the total budget, a decrease of 6% from 1999. Overall, the total program budget increased by an average of 7.7% annually and the program support from the sponsoring institution increased by an average of 7% annually from 1984 to 2000. Federal support decreased by 18% from 1999 to the second lowest federal grant budget since 1984. The proportion of the total budget from federal training grants has decreased from 41% in 1985 to 14% in 2000. 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 215% while support from the sponsoring institution increased 188%.

Figure 5. Trends in P.A. Program Support: 1984 Through 2000



Student Educational Expenses

For the class entering in 2000, 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	\$28,048	\$2,000-100,000	101	\$1,010
Nonresident Student	\$34,662	\$6,100-141,000	101	\$1,359
<u>Books, Fees, and Equipment</u>	\$ 4,636	\$ 750- 45,000	99	\$ 182
<u>Total Student Costs: (Tuition, Books, Fees, Equipment)</u>				
Resident Student	\$32,684	\$8,100-106,000	101	\$1,282
Nonresident Student	\$39,298	\$9,000-148,000	101	\$1,541

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 \$6,614 difference between resident and nonresident tuition among the 101 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 \$1,010 per month while the nonresident paid \$1,359 per month, a 35% difference.

Expenses associated with books, equipment and fees averaged \$4,636 per student for their entire professional training. These expenditures represented approximately 14.2% 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 \$32,684 for residents and \$39,298 for nonresidents. The average total cost per month was \$1,282 for residents and \$1,541 for nonresident students.

As shown in Table 7, the majority of students (85.7%) received financial aid, which averaged \$16,930 per student per year and accounted for 104% of the costs of tuition, fees, books, and equipment (\$16,342) for the typical resident student. Using these values, one can estimate that the typical resident P.A. student would be indebted approximately \$33,860 (2 X \$16,930) 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	85.7%	25-100%	88
Amount of Aid Received/Year	\$16,930	\$1,500-42,500	83

Student Expenses by Consortia Region

Tuition (for the entire curriculum) and total costs for P.A. students during the 2000-2001 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 (\$39,397/curriculum) and lowest for programs located in the Heartland region (\$12,035/curriculum). Nonresident tuition varied less across regions with a difference of approximately \$13,040 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 83.2% in the Midwestern region to 88.4% 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	20	\$30,453	\$34,302	\$1,194	\$1,345	84.2%
Eastern	16	\$39,397	\$40,716	\$1,545	\$1,597	86.9%
Southeastern	16	\$26,468	\$32,412	\$1,038	\$1,271	88.4%
Midwestern	24	\$25,737	\$35,329	\$1,009	\$1,385	83.2%
Heartland	11	\$12,035	\$27,676	\$ 472	\$1,085	83.9%
Western	14	\$29,989	\$35,177	\$1,176	\$1,379	88.0%
Total	101	\$28,048	\$34,662	\$1,010	\$1,335	85.7%

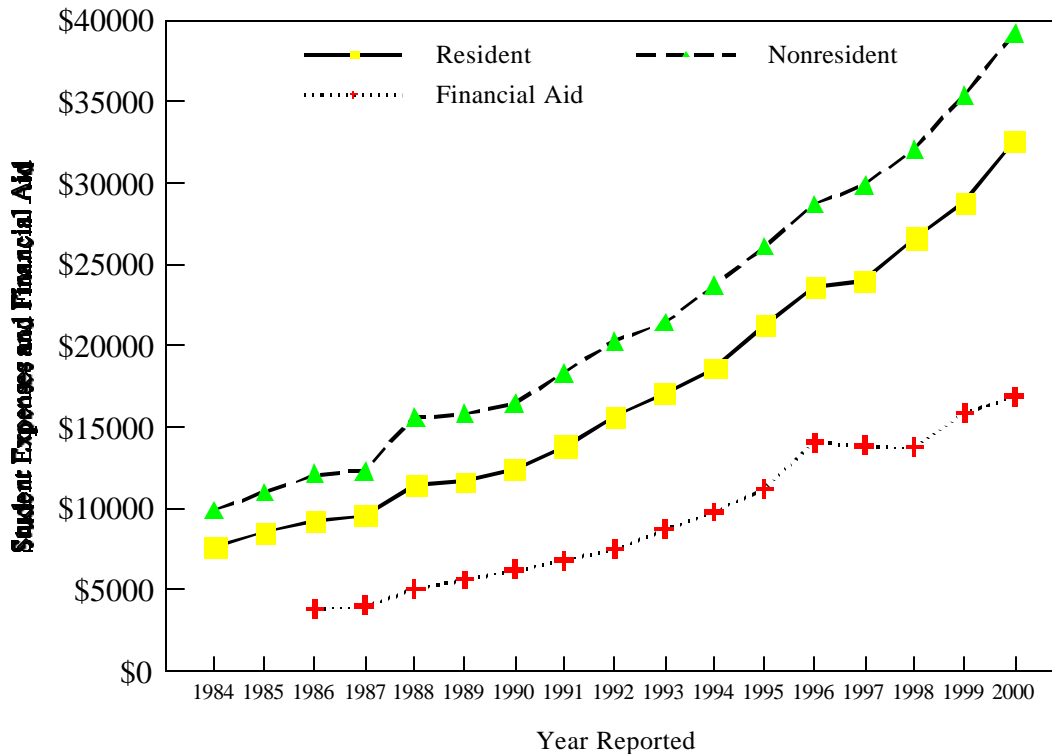
Trends in P.A. Student Expenses

Comparisons between tuition and student expenses, and the proportion of students receiving financial aid from 1984 through 2000, are shown in Table 9 and Figure 6.

Table 9. Trends in P.A. Student Expenses, 1984 Through 2000

Academic Year	Mean Tuition				Total Expenses				% With Fin. Aid		Fin. Aid Received
	Resident N	Resident Mean	Nonresident N	Nonresident Mean	Resident N	Resident Mean	Nonresident N	Nonresident Mean	N	%	
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

Figure 6. Trends in P.A. Student Expenses: 1984 Through 2000



Tuition has increased 340% and 286% over the past seventeen years for resident and nonresident students, respectively, an average of 9.8% and 8.9% per year, respectively. Similarly, total student expenses (which includes tuition, books, equipment, and fees over the entire program) increased by 326% and 294% over the seventeen-year period for resident and nonresident students, respectively.

The proportion of students receiving financial aid averaged 73% from 1984 through 2000 and has varied within a narrow range, i.e., 63% to 86%, 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 338% since 1986; total expenses increased by 253% for resident and 223% 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. Of the four types of support available, N.H.S. Corps Scholarships accounted for 82/88 (93%). In total, 26 scholarships were reported among the first year class and 51 among the second year class.

Table 10. Students: Public Health Service Scholarships

<u>Class</u>	<u>N.H.S. Corps</u>		<u>COSTEP</u>		<u>Loan Repay.</u>		<u>Comm. School</u>		<u>Total</u>
	<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	22	84.6%	1	3.8%	3	11.5%	0	0.0%	26
2nd Year	49	96.1%	2	3.9%	0	3.7%	0	0.0%	51
3rd Year	11	100.0%	0	0.0%	0	0.0%	0	0.0%	11
Total	82		3		3		0		88

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 seventeen years, it has been shown that there are an average of 3.5 to 3.9 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 631 (188 Category IV) personnel reported by survey respondents (N=95; 6.6 per program), 355 P.A.'s and 276 non-P.A.'s. Eighty-eight programs indicated that they had at least one Category I - III P.A. (mean of 4.0/program) and 40 programs indicated that individuals without a P.A. credential were employed in at least one of the I - III categories (mean of 2.2/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	177	147	31	0	355	355
# of Programs*	83	78	25	0	88	95
Mean #/Program	2.1	1.9	1.2	0.0	4.0**	3.7***
<u>Non-Physician Assistants</u>						
Total Number	53	8	27	188	88	88
# of Programs*	37	8	19	77	40	95
Mean #/Program	1.4	1.0	1.4	2.4	2.2**	0.9***

- * 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=95) programs.

The majority of program personnel in Categories I - III were credentialed as P.A.'s (80%) as compared to non-P.A.'s (20%). Proportionately, there were relatively few non-P.A.'s in Category II positions (5.2% of Category II personnel). Across all programs (N=95), the mean per program is 3.7 P.A.'s and 0.9 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 Western region 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	22	23 (11)	37 (0)	10 (3)	0 (31)	70 (45)	3.2/(0.6)
Eastern	16	33 (3)	28 (0)	2 (0)	0 (20)	63 (23)	3.9/(0.2)
Southeastern	14	33 (11)	19 (0)	5 (3)	0 (35)	57 (49)	4.1/(1.0)
Heartland	10	23 (5)	13 (0)	5 (4)	0 (19)	41 (28)	4.1/(0.9)
Midwestern	18	31 (8)	26 (4)	2 (7)	0 (33)	59 (52)	3.3/(1.1)
Western	15	34 (15)	24 (4)	7 (10)	0 (50)	65 (79)	4.3/(1.9)
Total	95	177 (53)	147 (8)	31 (27)	0 (188)	355 (276)	3.7/(0.9)

* # of non-P.A. personnel are in parentheses, mean/program is based on N=95.

Programs located in the Northeastern and Midwestern regions had the fewest P.A.'s associated with the program (mean of 3.2/program and 3.3/program, respectively). Programs in the Eastern region employed the least number of Category I-III non-P.A.'s (0.2/program). Programs in the Western region employed the greatest number of Category IV personnel per program (3.3/program), while programs in the Northeastern region employed the least (1.4/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 91% 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> <u>N = 355</u>
	<u>I</u> <u>N = 177*</u>	<u>II</u> <u>N = 147</u>	<u>III</u> <u>N = 31</u>	
<u>Mean % Time</u>	90.9%	90.0%	91.8%	90.6%
<u>Annual Salary</u>	<u>N = 167</u>	<u>N = 139</u>	<u>N = 29</u>	<u>N = 335</u>
Mean**	\$59,848	\$59,370	\$71,153	\$60,628
Range	\$27,852 - \$92,514	\$37,564 - \$87,500	\$54,000-\$96,000	\$27,852-\$96,000
<u>Months in Position</u>	<u>N = 176</u>	<u>N = 145</u>	<u>N = 31</u>	<u>N = 352</u>
Mean	50.6	42.7	94.8	51.2
Median	36.0	30.0	72.0	54.5
Range	1-292	1-251	22-408	1-408

* 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 of the 31 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 \$60,628 with a range from \$27,852 to \$96,000. On average, individuals had been in their position for 51.2 months (range 1-408 months). There was some difference in mean salary across categories, ranging from \$59,370 for Category II to \$71,153 for Category III, a 20% increase. P.A.'s in Category III had held their positions for the longest period of time, averaging 95 months, while the majority of P.A.'s in Category II had been associated with the program for the least amount of time (43 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. Over one-half (51%) 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 I (61%). Twenty-seven 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=95	<u>Total</u> N=450
	<u>I</u> N=177	<u>II</u> N=147	<u>III</u> N=31		
Clinical P.A.'s	108(61%)	78(53%)	17(55%)	26(27%)	229(51%)
<u>Hrs Worked/Week</u>					
Mean	11.8	16.4	9.7	10.4	13.1
(N)	(91)	(68)	(14)	(20)	193
Range	1-36	1-40	1-24	1-40	1-40
Number (%) Paid for Services	101(94%)	71(91%)	15(88%)	21(81%)	208(91%)
<u>Mean Wage/Hour</u>	\$37.54	\$38.12	\$39.93	\$41.15	\$38.28
(N)	(91)	(66)	(14)	(19)	(190)
<u>Annual Amount*</u>	\$21,263	\$30,008	\$18,591	\$20,542	\$24,070
<u>Adjust. Salary**</u>	\$71,423	\$65,547	\$63,714	\$75,091	\$67,848
<u>% Salary From Clinical Earnings</u>	29.8%	45.8%	29.2%	27.4%	35.5%

* Estimated at 48 weeks per year.

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

On average, P.A.'s in Categories I-III spent 13.1 hours per week providing patient care; program directors who were P.A.'s spent an average of 10.4 hours per week. The range in time spent was very broad, from one hour per week to 40 hours per week. Ninety-one percent of P.A. personnel received additional compensation for their clinical services. The mean hourly wage averaged \$38.28/hour and varied from \$37.54 for Category I to \$41.15 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 \$24,070 from their clinical activity. Category III personnel had the lowest additional income (\$18,591) and those in Category II had the highest (\$30,008).

An "adjusted" annual income (base salary + clinical earnings) was determined for those indicating they received earnings from both sources. On average, there was a 15.3% increase over base salary for those personnel that were clinically active. And, clinical earnings accounted for over one-fifth 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 89% 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 = 53</u>	<u>N = 8</u>	<u>N = 27</u>	<u>N = 188</u>	<u>N = 88</u>
Mean % Time	85.4%	100.0%	92.4%	93.6%	88.9%
<u>Annual Salary*</u>	<u>N = 45</u>	<u>N = 7</u>	<u>N = 25</u>	<u>N = 180</u>	<u>N = 77</u>
Mean	\$55,913	\$42,401	\$49,164	\$27,205	\$52,496
Median	\$53,900	\$41,800	\$43,000	\$26,500	\$50,000
Range	\$29,460- \$120,000	\$26,000- \$55,298	\$25,000- \$125,420	\$13,071 - \$52,537	\$25,000- \$125,420
<u>Months in Position</u>	<u>N = 49</u>	<u>N = 8</u>	<u>N = 27</u>	<u>N = 185</u>	<u>N = 84</u>
Mean	55.1	30.6	113.4	61.8	71.5
Median	28.0	13.5	60.0	35.0	44.0
Range	1 - 300	6 - 84	1 - 326	1 - 420	1 - 420

* Salaries adjusted to 1 FTE

The mean salary for non-P.A.'s across Categories I - III was \$52,496, ranging from \$25,000 to \$125,420. On average, these individuals had been employed 71.5 months (median of 44, range of 1-420 months). Non-P.A.'s in Category I earned the highest average salary (\$55,913). Non-P.A.'s in Category II had the lowest average salary (\$42,401). 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 had been employed almost four 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 \$27,205 with a broad range of \$13,071 to \$52,537. Category IV personnel had been in their position an average of 61.8 months (median: 35 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.	141	232	373	\$63,538	\$56,875	53.5	56.6
Black/African-Amer.	15	19	34	\$53,446	\$58,597	24.1	57.3
Latin/Hisp/Mex. Am.	7	12	19	\$71,932	\$51,330	87.9	33.8
Asian	4	7	11	\$59,740	\$54,700	94.8	67.6
Asian Subpopulation	0	0	0	-----	-----	-----	-----
Native Haw./Other PI	0	0	0	-----	-----	-----	-----
Amer. Ind./Alaskan	0	1	1	-----	-----	-----	-----
Other	<u>1</u>	<u>0</u>	<u>1</u>	-----	-----	-----	-----
Total	168	271	439	\$62,796	\$56,790	52.8	56.1

Proportionately, there were more women (62%) among the P.A. and non-P.A. personnel; 62% of the white (232/373) and 59% of the non-white personnel (39/66) were women. In total, 66 P.A. program staff and/or faculty from 41 programs were identified as members of an ethnic minority (34 Black/African-American, 19 Latino/Hispanic, 11 Asian, one American Indian/Alaskan Native, and one Other). This constitutes 15% (66/439) of the total number of faculty and staff and 43% of the programs responding. In all categories except Black/African-American, males earned higher annual salaries than their female counterparts where comparisons were possible. Latino/Hispanic 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 (95.6%). Forty-nine (27%) Category IV P.A. program staff from 23 programs were identified as members of an ethnic minority. Females were employed longer in their current position than males, 62 and 57 months, respectively.

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

<u>Ethnicity</u>	<u>Number of Personnel</u>			<u>Mean Annual Salary</u>		<u>Mean Months in Position</u>	
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
White/Non-Hisp.	4	129	133	\$29,670	\$26,945	37.5	63.2
Black/African-Amer.	2	23	25	\$30,473	\$28,194	133.5	72.3
Latin/Hisp/Mex. Am.	2	13	15	\$20,000	\$29,683	19.5	73.8
Asian	0	7	7	-----	\$27,320	-----	40.7
Asian Subpopulation	0	2	2	-----	\$36,350	-----	10.5
Native Haw./Other PI	0	0	0	-----	-----	-----	-----
Amer. Ind./Alaskan	0	0	0	-----	-----	-----	-----
Total	8	174	182	\$27,453	\$27,193	57.0	62.1

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

<u>Categories</u>	<u>Mean Annual Salary</u>				<u>Mean % Time</u>				<u>Mean Months in Position</u>			
	<u>Male</u>	<u>N</u>	<u>Female</u>	<u>N</u>	<u>Male</u>	<u>N</u>	<u>Female</u>	<u>N</u>	<u>Male</u>	<u>N</u>	<u>Female</u>	<u>N</u>
<u>Cat. I</u>												
P.A.	\$61,138	58	\$59,162	109	93.4	61	89.5	116	44.6	61	53.8	115
Non-P.A.	\$63,322	18	\$50,974	27	85.2	23	85.5	30	45.9	21	56.8	28
<u>Cat. II</u>												
P.A.	\$61,082	64	\$57,908	75	92.4	67	88.1	80	39.1	66	45.8	79
Non-P.A.	-----	0	\$42,401	7	-----	0	100	7	-----	0	30.6	8
<u>Cat. III</u>												
P.A.	\$68,788	12	\$72,822	17	99.2	12	87.2	19	92.2	12	96.4	19
Non-P.A.	\$84,005	6	\$36,949	18	89.3	7	93.5	20	207.3	7	80.5	20
<u>Cat. IV</u>												
Non-P.A.	\$27,453	8	\$27,193	174	87.5	8	93.8	180	57.0	8	62.1	176
<u>Cat. I - III</u>												
P.A.	\$61,797	134	\$59,850	201	93.4	140	88.7	215	46.1	139	54.6	213
Non-P.A.	\$68,153	24	\$44,965	52	86.2	30	90.3	57	86.2	28	61.5	56

Overall, male personnel earned higher annual salaries than female personnel. In one category, P.A. Category III, the women personnel earned more than the men. 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 Southeastern region reported the highest annual salaries. The lowest mean P.A. salary was in the Eastern region. Non-P.A.'s in the Eastern region had the highest salaries, while those in the Northeastern region had the lowest salaries. P.A.'s salaries were higher than Non-P.A.'s in four of the six regions. On average non-P.A.'s were employed for more months. There was not a statistically significant correlation ($r = 0.234$; $p > .05$) 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	\$62,133	65	\$46,055	9	51.4	66.0
Eastern	\$57,648	54	\$62,500	2	46.6	32.3
Southeastern	\$63,285	53	\$61,834	12	54.1	69.1
Midwestern	\$59,214	59	\$47,150	19	42.2	40.3
Heartland	\$61,913	40	\$62,021	8	52.8	113.0
Western	\$59,916	64	\$50,685	27	60.4	82.7
Total	\$60,628	335	\$52,494	77	51.3	69.8

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 of the regions where comparison could be made. Latino/Hispanic personnel had salaries higher than Black/African-Americans in the Southeastern and Western region.

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	\$61,632	61	\$56,500	8	\$52,300	3
Eastern	\$57,833	51	-----	1	-----	0
Southeastern	\$63,122	52	\$60,061	9	\$61,667	3
Midwestern	\$56,429	71	\$55,210	5	-----	0
Heartland	\$63,085	43	-----	0	\$52,500	4
Western	\$56,593	70	\$54,060	9	\$61,944	8
Total	\$59,402	348	\$56,504	32	\$59,342	18

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 four 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/Hispanic	N
Northeastern	\$30,365	18	\$30,978	9	-----	1
Eastern	\$23,225	16	-----	1	-----	1
Southeastern	\$23,488	27	\$28,300	5	-----	1
Midwestern	\$27,131	29	\$30,473	2	-----	1
Heartland	\$26,444	9	\$28,111	2	\$22,422	4
Western	\$30,547	28	\$23,887	4	\$31,574	7
Total	\$27,031	127	\$28,392	23	\$28,392	15

Trends in P.A. Program Personnel Salaries from 1986 Through 2000

Trends in P.A. personnel salary from 1986 through 2000 are shown in Table 23. Note, salary data was not available for 1987-88. There has been a 113% increase in P.A. salaries (all categories combined) from 1985-86 to 2000-2001, an average of 6% 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 2000

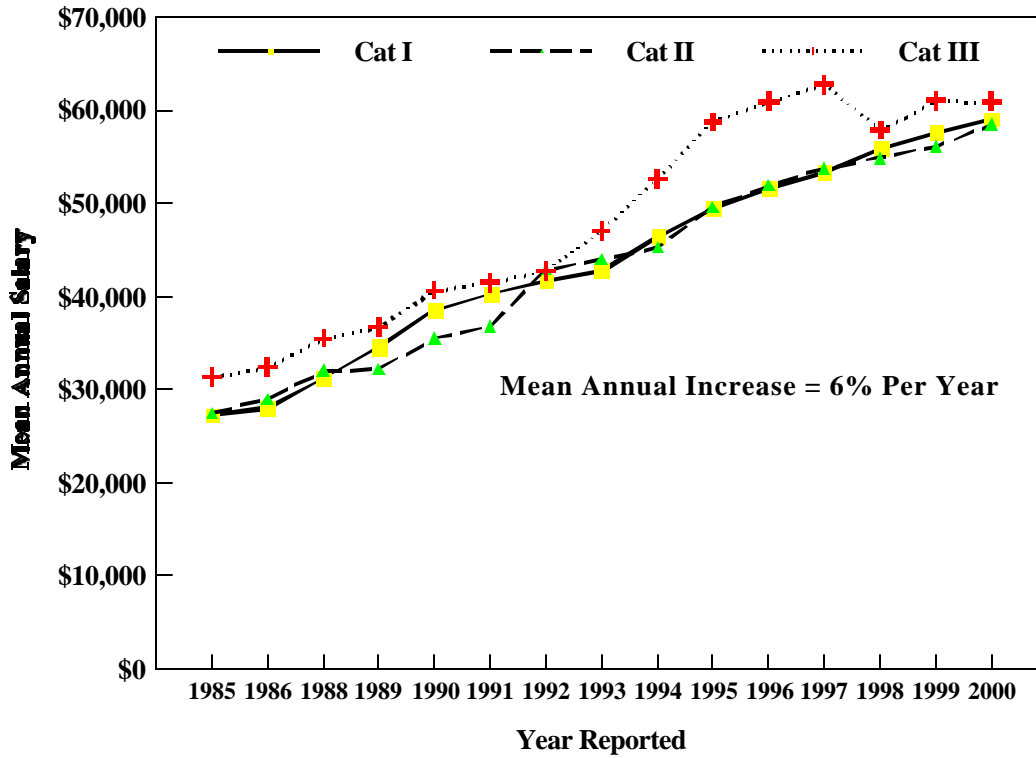
Categories	Cat. I	Cat. II	Cat. III	All Cat.	Months in Position
1985-86	\$27,264	\$27,553	\$31,298	\$27,769	36.6
1986-87	\$28,129	\$29,060	\$32,451	\$29,010	36.3
1988-89	\$31,362	\$32,054	\$35,547	\$32,099	39.9
1989-90	\$34,610	\$32,300	\$36,756	\$33,723	43.9
1990-91	\$38,547	\$35,578	\$40,661	\$37,404	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

Months in position did not vary substantially, averaging 42.6 months over the 15-year period (range of 36.3 to 54.8). A thorough discussion of personnel turnover is presented at the end of Section II.

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=24.63; p<0.001; men higher than women) and consortia region (F=14.01; p<0.001; the Southeast had higher salaries than any other category). The category of personnel demonstrated no significant main effects. No significant interactions were found. Taken together, category, gender and region accounted for 31.2% of the variance in salaries (R=0.559).

Trends in salary for all categories of program personnel (data for P.A.'s and non-P.A.'s were combined) from 1985 through 2000 are illustrated in Figure 7. Salaries for personnel consistently increased each year with the largest increase occurring in 1990, with the exception of the 1998-99 year for Category III.

Figure 7. Trends in P.A. Program Salaries: 1985 Through 2000



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	216	93.5%	133	85.8%	38	65.5%	387	87.2%
Staff	15	6.5%	22	14.2%	20	34.5%	57	12.8%
<u>Tenure Status</u>								
In Tenure Track*	66	30.6%	31	23.3%	13	34.2%	110	28.4%
Faculty Tenured**	19	8.8%	1	0.8%	7	18.4%	27	7.0%

* Percent of TOTAL faculty in tenure track not tenured.

** Percent of TOTAL faculty tenured (e.g., 19/216 = 8.8%)

For all categories combined, more than three fourths (N=387; 87%) of personnel were classified as faculty. This distribution of individuals classified as faculty varied greatly between 65.5% for Category III and 93.5% 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 (28.4%) of the faculty were on the tenure track. However, only 7.0% of the faculty were tenured. Viewed in another way, 25% 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 (93.6% versus 83.0%, respectively). A larger proportion of male faculty were on tenure track compared to female faculty, 34.6% versus 24.0%, respectively. Although very few faculty were tenured (7.0%), more male faculty were tenured (8.0%) as compared to female faculty (6.2%).

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

Personnel Classification	Female		Male		Total	
	Number	(%)	Number	(%)	Number	(%)
Faculty Appointment	225	83.0%	162	93.6%	387	87.2%
Staff Appointment	46	17.0%	11	6.4%	57	12.8%
Tenure Status						
Tenure Track Faculty	54	24.0%	56	34.6%	110	28.4%
Tenured Faculty*	14	6.2%	13	8.0%	27	7.0%

* 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 3% 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 (31%) as their highest degree. Over one-half of the personnel held a master's degree (N=242; 54.8%). Forty-eight individuals (11%) 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	36	15.8%	3	1.9%	9	15.0%	1	1.2%	48	10.9%
Masters	130	57.0%	79	51.3%	33	55.0%	12	14.1%	242	54.8%
Bachelors	60	26.3%	66	42.9%	12	20.0%	48	56.5%	138	31.2%
Associate	2	0.9%	6	3.9%	6	10.0%	24	28.2%	14	3.2%
Total	228	100.0%	154	100.0%	60	100.0%	85	100.0%	442	100.0%

The number and academic rank of program faculty, by category, are shown in Table 27. The percentage of P.A. and non-P.A. faculty holding the academic rank of instructor/lecturer (N=167; 44.8%) or assistant professor (N=155; 41.6%) was about the same.

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	4	1.9%	0	0.0%	3	7.0%	7	1.9%
Associate Prof.	28	13.5%	6	4.9%	10	23.3%	44	11.8%
Assistant Prof.	96	46.2%	49	40.2%	10	23.3%	155	41.6%
Instructor/Lect.	<u>80</u>	<u>38.5%</u>	<u>67</u>	<u>54.9%</u>	<u>20</u>	<u>46.6%</u>	<u>167</u>	<u>44.8%</u>
Total	208	100.0%	122	100.0%	43	100.0%	373	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 \$61,212 (N=358), 35.6% higher than those appointed to staff positions (\$45,157; N=54). In general, the annual salaries of non-P.A. personnel with faculty rank (\$62,643, N=48) were similar to the salaries of P.A. personnel with faculty appointments (\$60,991; N=310). 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.	\$60,030	162	\$60,089	121	\$70,794	27	\$60,991	310
Non-P.A.	<u>\$60,778</u>	<u>36</u>	<u>\$51,099</u>	<u>3</u>	<u>\$73,949</u>	<u>9</u>	<u>\$62,643</u>	<u>48</u>
Total	\$60,166	198	\$59,872	124	\$71,583	36	\$61,212	358
<u>Staff</u>								
P.A.	\$53,948	5	\$54,531	18	\$76,000	2	\$56,132	25
Non-P.A.	<u>\$36,454</u>	<u>9</u>	<u>\$35,878</u>	<u>4</u>	<u>\$35,223</u>	<u>16</u>	<u>\$35,695</u>	<u>29</u>
Total	\$42,702	14	\$51,140	22	\$39,754	18	\$45,157	54

Among the personnel classified as staff, those that were P.A.'s earned a substantially higher (57%) salary (\$56,132) than non-P.A.'s (\$35,695). In comparison to the previous year (1999-2000), there was over a 5% increase in the faculty salaries and a 3.4% 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 5.7% higher than those of female faculty (\$63,192 versus \$59,801, respectively). Male staff earned substantially higher salaries than did female staff, \$56,898 vs. \$42,488, 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.	\$60,232	185	\$61,114	125
Non-P.A.	\$56,480	24	\$68,805	24
Total	\$59,801	209	\$63,192	149
<u>Staff</u>				
P.A.	\$55,426	16	\$57,387	9
Non-P.A.	\$35,095	28	-----	1
Total	\$42,488	44	\$56,898	10

Compared to the previous year (1999-2000), faculty salaries have increased 7.2% for females and 7.8% for males, while staff salaries increased by less 8.1% for males and decreased by 3.6% for females.

Annual salary of program personnel by highest degree earned for all categories is shown in Table 30. Doctoral-level personnel (N=45) earn the highest salary (overall for Categories I - III =\$65,899) and associate degree level individuals the lowest (\$46,186). Category III individuals earned more at the doctorate and master's degree level; Category III personnel with doctorates 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	\$65,379	32	\$51,000	3	\$72,032	10	-----	1	\$65,899	45
Masters	\$59,897	117	\$60,310	72	\$69,416	28	\$33,579	12	\$61,262	217
Bachelors	\$54,812	59	\$58,315	60	\$42,061	12	\$29,114	45	\$55,248	131
Associate	\$70,071	2	\$47,827	8	\$30,961	4	\$26,105	23	\$46,186	14
Not Reported	-----	1	-----	1	-----	0	\$25,877	99	\$52,500	2
Total	\$59,375	211	\$58,527	144	\$60,973	54	\$27,321	180	\$59,287	409

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, \$56,868 at the rank of instructor in Category II to \$75,482 for those at the full 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	\$64,746	4	-----	0	\$75,482	3	\$69,347	7
Associate Prof.	\$65,001	25	\$64,000	15	\$67,781	10	\$65,257	50
Assistant Prof.	\$60,464	87	\$61,779	48	\$72,562	10	\$61,734	145
Instructor/Lect.	\$57,461	78	\$57,123	60	\$56,868	18	\$57,263	156
Not Reported	<u>\$50,243</u>	<u>18</u>	<u>\$55,650</u>	<u>33</u>	<u>\$51,087</u>	<u>12</u>	<u>\$53,236</u>	<u>63</u>
Total	\$59,107	212	\$58,905	156	\$61,633	53	\$59,351	421

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=84; 88%) were working full-time. Eighty-three percent of the directors were P.A.'s (N=73).

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%	11.1	50% - 100%	95		
<u>Annual Salary</u>	<u>\$79,878</u>	<u>\$13,466</u>	<u>\$ 53,733 - 113,193</u>	<u>88</u>		
P.A.	\$79,904	\$12,508	\$ 53,733 - 113,193	73		
Non-P.A.	\$79,749	\$17,388	\$ 56,960 - 110,000	15		
Male	\$82,739	\$14,648	\$ 53,733 - 113,193	41		
Female	\$76,246	\$11,196	\$ 56,960 - 98,983	47		
Doctorate	\$83,685	\$15,460	\$ 53,733 - 113,193	35		
Masters	\$78,363	\$11,390	\$ 54,269 - 103,400	47		
Bachelors	\$69,538	\$ 9,861	\$ 61,000 - 86,000	6		
<u>Months in Position</u>	<u>75.55</u>	<u>84.05</u>	<u>1-354</u>	<u>94</u>		
P.A.	72.56	79.74	1-336	78		
Non-P.A.	90.13	101.27	13-354	16		
Male	65.71	79.27	1-336	51		
Female	88.12	89.11	4-354	43		
<u>Highest Degree Held</u>	<u>Female</u>	<u>%</u>	<u>Male</u>	<u>%</u>	<u>Total</u>	<u>%</u>
Doctorate*	13	37.1%	22	62.9%	35	36.8%
Masters	29	53.7%	25	46.3%	54	56.8%
Baccalaureate	3	50.0%	3	50.0%	6	6.3%

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

The mean average salary for program directors was \$79,878, ranging from \$53,733 to \$113,193. Program directors who were P.A.'s earned a similar salary in comparison to those who were non-P.A.'s (\$79,904 and \$79,749, respectively). The average months in position varied from 73 months for physician assistant to 90 months for non-physician assistant. The median months in position was 42.5 months.

Male program directors had higher average salaries (\$82,739) than did female directors (\$76,246). The mean time in position of female directors exceeded that of male directors by almost two years (88 versus 66 months, respectively). The median number of months in position for male and female program directors is 27 and 48.5 respectively. In comparison to the 1999-2000 data, mean salaries increased by 4.1% (\$79,878 versus \$76,709).

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 Eastern region had lower mean salaries (\$75,704) compared with the rest of the United States. Directors in the Heartland and Western regions had the highest mean salaries (\$85,214 and \$83,100, respectively). The lowest individual salary for a program director was in the Western region (\$53,733) and the highest was in the Heartland region (\$113,193). Program directors in the Southeastern region had been employed in their positions the longest time, over eight years (97.4 months), and those in the Midwestern region the shortest period of time (50.0 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	18	\$ 78,411	\$57,000- 93,780	21	89.9	39.0	1-354
Eastern	14	\$ 75,704	\$59,000- 98,000	15	69.5	48.0	2-280
Southeastern	13	\$ 78,434	\$54,269- 110,900	14	97.4	61.0	10-336
Midwestern	18	\$ 79,867	\$56,960- 110,000	18	50.0	39.5	14-115
Heartland	11	\$ 85,214	\$62,064- 113,193	11	77.5	52.0	4-300
Western	14	\$ 83,100	\$53,733- 107,463	15	70.3	50.0	4-336
Total	88	\$ 79,878	\$53,733-113,193	94	75.6	48.0	1-354

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 89 medical directors, of which seven were employed as such on a full-time basis, the remainder, on average, devoted less than one-quarter (22.9%) of their time to program-related activities. The mean annual salary of the medical directors reporting (N=72) was \$108,575 but varied extensively, ranging from \$36,000 to \$200,000. Female medical directors (N=17) earned a higher annual mean salary (\$109,547) than did male medical directors (\$108,274).

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>	29.0	25.4	20.0	5%-100%	89
<u>Annual Salary</u>	\$108,575	\$37,138	\$105,560	\$36,000-200,000	72
Female	\$109,547	\$37,024	\$115,000	\$54,233-176,800	17
Male	\$108,274	\$37,169	\$102,000	\$36,000-200,000	55
<u>Months in Position</u>	64.0	66.1	52.0	2-349	85
Female	68.2	75.0	54.5	3-349	22
Male	62.6	62.6	52.0	2-264	63

Overall, medical director salaries increased by 10.5% 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 (55; 76.4%). The average months in position is lower for male directors (62.6 months).

Data concerning medical director salaries, months in position and consortia region are shown in Table 35. Medical directors of those programs in the Northeastern region had the highest mean salaries (\$117,197). Those directors in the Midwestern had the lowest salaries (\$96,420). The Northeastern, Eastern and Heartland regions had the highest median salaries (\$120,000). Medical directors in the Northeastern region were in their positions for the longest period of time (82.4 months). It should be noted that the range in both salaries (range of \$36,000 to \$200,000) and months in position (from 2 to 349 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	12	\$117,197	\$120,000	\$56,900-200,000	20	82.4	68.0	4-264
Eastern	13	\$110,896	\$120,000	\$50,000-165,492	13	66.6	48.0	3-227
Southeastern	10	\$112,732	\$106,610	\$36,000-176,800	12	45.8	40.0	2-121
Midwestern	15	\$ 96,420	\$100,000	\$45,000-170,000	16	45.9	45.0	2-112
Heartland	9	\$114,971	\$120,000	\$50,000-175,000	8	64.0	55.5	12-132
Western	<u>13</u>	<u>\$104,694</u>	<u>\$100,000</u>	<u>\$70,000-150,000</u>	<u>15</u>	<u>74.7</u>	<u>22.0</u>	<u>3-349</u>
Total	72	\$108,575	\$105,560	\$36,000-200,000	85	64.0	52.0	2-349

* 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; 82.3%) were practicing in primary care specialties, predominantly family medicine (N=45; 57%) and internal medicine (N=15; 19%). Only fourteen 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	45	57.0%	Cardiology	3	3.8%
Internal Medicine	15	19.0%	Emergency Med.	3	3.8%
Pediatrics	<u>5</u>	<u>6.3%</u>	General Surgery	2	2.5%
Total	65	82.3%	Psychiatry	1	1.3%
			Other	<u>5</u>	<u>6.3%</u>
			Total	14	17.7%

Comparisons between Medical and Program Directors

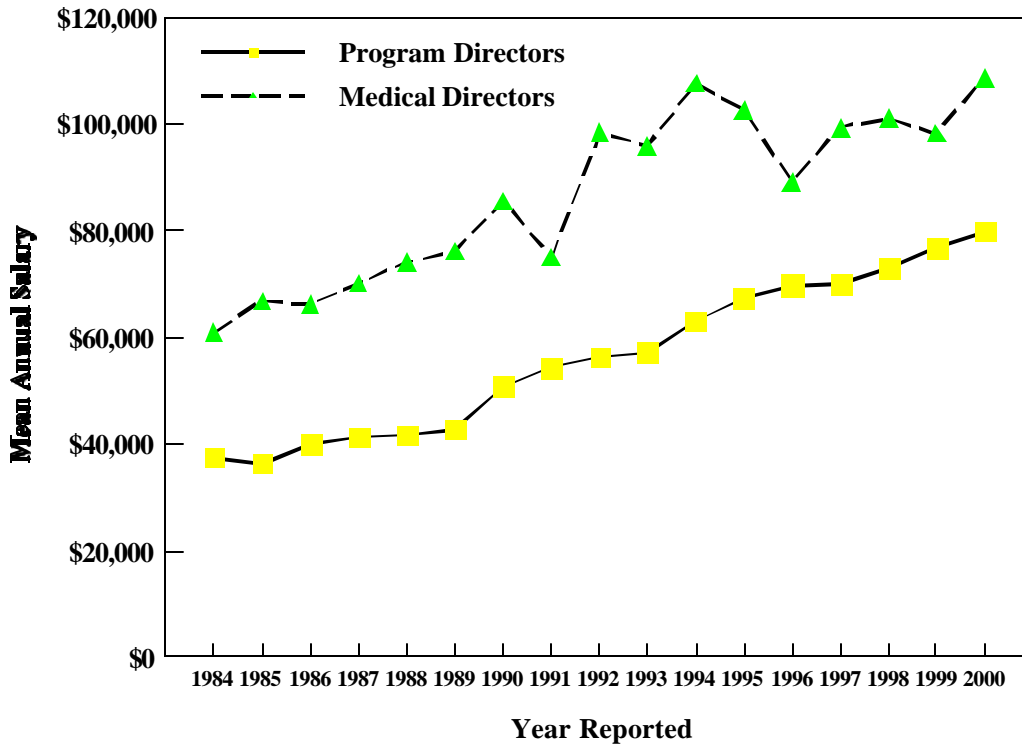
A comparison between medical and program directors' salaries from 1984-85 through 2000-2001 is shown in Table 37 (next page). Note, information concerning the characteristics of medical directors was not available in 1987-88. Between 1984 and 2000, there has been a 113% increase in the mean salary for program directors and a 78% increase for medical directors. The mean time in position has increased for program directors over this period (64.5 to 75.6 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 2000

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
17-yr Mean	\$56,374	70.6	55	\$ 87,560	66.2	45

On average, in 2000, medical directors earned an annual salary approximately 36% higher than the typical program director (\$108,575 versus \$79,878). Over the seventeen-year period, the medical directors earned an annual salary of approximately 55% higher than the typical program director (\$87,560 versus \$56,374). Trends in salary for the program and medical directors from 1984 through 2000 are in Figure 8 and clearly illustrates the variation in directors' salaries since 1984.

Figure 8. Program and Medical Directors' Salaries: 1984 Through 2000



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 14% 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-fifth 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	12	12.6%	14	15.9%
Faculty Appointment	83	87.4%	74	84.1%
Total	95	100.0%	88	100.0%
<u>Tenure Status</u>				
Tenure Track Faculty*	35	42.2%	21	28.4%
Faculty Tenured*	16	19.3%	13	17.6%

* Percent of TOTAL faculty tenured

Since 1985-86, the proportion of program and medical directors classified as faculty has remained relatively constant, averaging 83.1%; in 2000 around 86% of the directors were faculty. The proportion of faculty directors on the tenure track has averaged about 36.7% over time, and was 42% and 28%, respectively in 2000. The proportion of directors achieving tenured status in 2000 was lower than the mean of 20.4%.

A comparison between the academic rank of medical and program director faculty is shown in Table 39. A higher percentage of program directors (89%) held professorial rank (Assistant to Full Professor) as compared to medical directors (82%). In both cases, there were less than 20% of the directors classified as instructors or lecturers.

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	12	14.6%	13	18.6%
Associate Professor	27	32.9%	24	34.3%
Assistant Professor	34	41.5%	20	28.6%
Instructor/Lecturer	9	11.0%	13	18.6%
Total	82	100.0%	70	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 50.6 months would be around \$58,966 (i.e. \$57,024 + \$1942), a value similar to that reported in Table 14 for the average Category I individual (i.e. \$59,848) having been employed for a mean of 50.6 months.

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

<u>Characteristic</u>	<u>Base</u>	<u>± (Constant</u>	<u>x Months)</u>	<u>N</u>
Category I	\$ 57,024	+ (\$ 38.37	x _____)	212
Category II	\$ 56,967	+ (\$ 36.61	x _____)	146
Category III	\$ 51,471	+ (\$ 90.77	x _____)	54
Category IV	\$ 24,288	+ (\$ 30.90	x _____)	180
Categories I- III	\$ 55,772	+ (\$ 59.80	x _____)	412
Program Directors	\$ 77,177	+ (\$ 36.58	x _____)	88
Medical Directors	\$108,027	+ (\$ 8.77	x _____)	72

P.A. Program Personnel Turnover

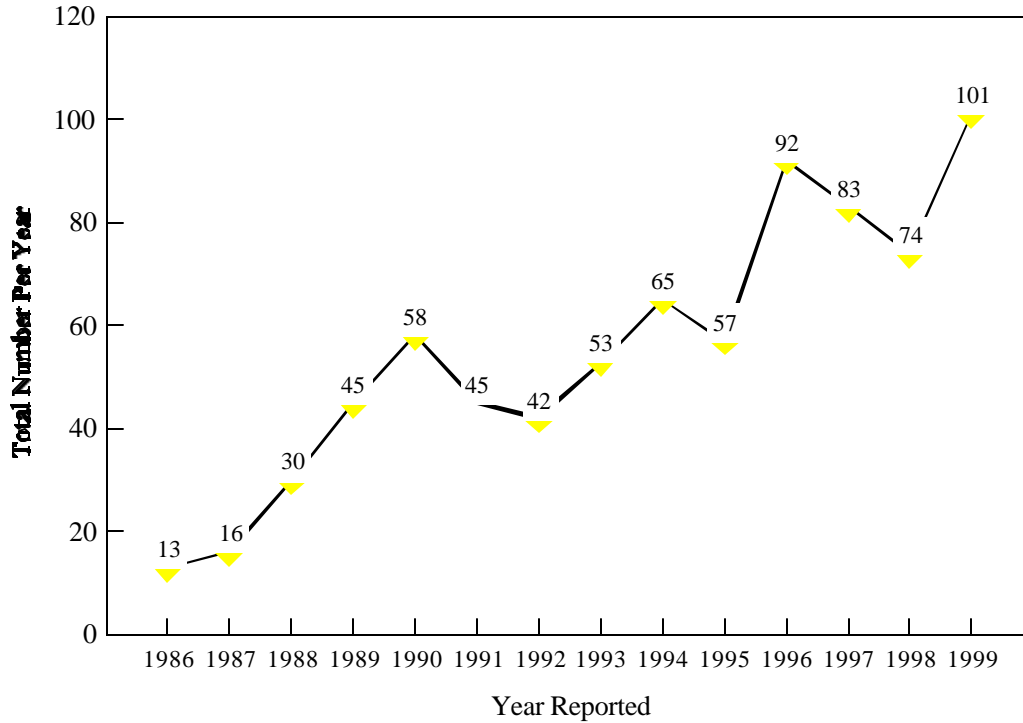
The 2000 survey requested updated information on personnel turnover for the period September 1999 through August 2000. Program respondents were asked to provide data on the type, frequency and characteristics of personnel terminating and those employed to fill the position. Reported herein is the turnover activity for 1999-2000 as well as the cumulative data for the fourteen-year period (1986-1999) in Table 41. Data are expressed as both total number and mean number of individuals per program for the time period identified. Over the fourteen year-period examined, respondents reported that 774 personnel left their positions, averaging 11.1/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 1999

<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	<u>101</u>	<u>1.1</u>
14-year Total	774	11.1
14-year Mean	55.4	0.8

During the 1999-2000 academic year, 101 P.A. program personnel departed (N=100 programs reported information) for an average of 1.1 per program. In 1999, personnel turnover per program was almost twice the overall 14-year mean of 55.4 personnel departing per year, an average of 0.8 persons departing/program.

Figure 9. Trends in Personnel Turnover: 1986 Through 1999



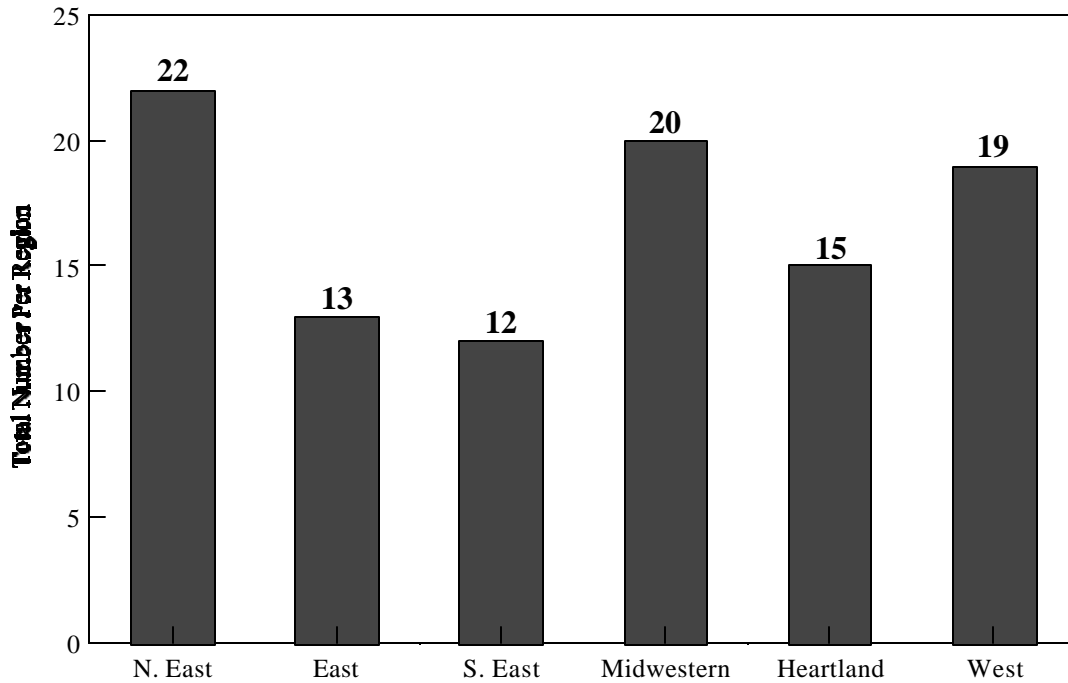
Our best estimate of the mean number of core program personnel is 11 per program, and includes one program and medical director, 5.2 P.A.'s and 0.9 non-P.A.'s and 3.1 Category IV personnel. Given the average turnover per year we estimate that 10% of program personnel departed this year (1.1/11), lower than the rate of 7% the previous year.

The number of personnel (and mean/program) departing over the past fourteen years and those departing in 1999, by region, is shown in Table 42 and illustrated in Figure 10 (next page). Turnover varied by region. For example, programs in the Heartland region reported the highest turnover (1.50 per program) while programs in the Eastern region had the lowest rate of turnover (0.81 per program).

Table 42. Program Personnel Turnover by Region, 1986 Through 1999

Consortia <u>Region</u>	Number <u>in 14 Years</u>	Number <u>in 1999</u>	1999 Mean/ <u>Program</u>	<u>N</u>
Northeastern	139	22	1.00	22
Eastern	102	13	0.81	16
Southeastern	122	12	0.86	14
Midwestern	152	20	1.11	18
Heartland	112	15	1.50	10
Western	<u>147</u>	<u>19</u>	<u>1.27</u>	<u>15</u>
Total	774	101	1.06	95

Figure 10. Personnel Turnover By Region: 1999-2000
(From 9/1/1999 Through 8/31/2000)



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, 101 program personnel (twenty Category IV) departed in 1999 with turnover highest among Category I personnel and least for Category III. On average 8.4 weeks were required to fill a position. Filling Category I positions averaged 5.7 weeks while 11.1 weeks were required to fill Category II positions.

Table 43. Comparison of Personnel Turnover in 1999 by Category

<u>Category</u>	<u>Number Departed</u>	<u>Number Employed</u>	<u>Percent Unfilled</u>	<u>Weeks to Fill Position</u>
I	39	36	7.7%	5.7
II	27	26	3.7%	11.1
III	5	5	0.0%	7.2
IV	20	18	10.0%	6.1
Program Director	4	3	25.0%	9.1
Medical Director	<u>5</u>	<u>4</u>	<u>20.0%</u>	<u>8.4</u>
Total	101	92	8.9%	8.4

Table 44 (next page) shows the characteristics of personnel departing and those employed. On average, personnel departed in 1999 were older (1.6 years) than those employed. A higher percentage of males were employed than departed. A higher percentage of non-white personnel were employed than departed.

Table 44. Characteristics of Personnel Departed and Employed in 1999
Program Personnel

Characteristic	Departed		Employed	
	(%)	N	(%)	N
Mean Age (yrs)	42.1		40.5	
Range	21-65		21-66	
<u>Gender</u>				
Male	33.7%	34	41.3%	38
Female	66.3%	67	58.7%	54
<u>Ethnicity</u>				
White	83.2%	84	73.9%	68
Non-White	16.8%	17	26.1%	24

The academic characteristics of personnel departing and those filling the vacated positions are shown in Table 45. Doctorate includes Ph.D., Ed.D., M.D and J.D. As indicated in Table 45, the majority of personnel employed held a masters degree (43%) as their highest credential, of those departing, 40 held a baccalaureate degree (44.9%) and 34 held a masters degree (38.2%). In addition, the majority of personnel departing were P.A.'s (62.4%) and those employed to fill these positions were also P.A.'s (80.4%).

Table 45. P.A. Program Personnel Turnover in 1999: Academic Characteristics

Highest Degree	Program Personnel			
	N	Departed (%)	N	Employed (%)
Associate/Certificate	3	3.4%	2	2.9%
Baccalaureate	40	44.9%	28	40.0%
Masters	34	38.2%	30	42.9%
Doctoral	12	13.5%	10	14.3%
P.A. Credentialed	63	62.4%	74	80.4%

The reasons cited for personnel turnover during 1999 and the fourteen-year totals, are shown in Table 46. In 1999, almost one-fourth (23%) of the individuals departing did so for geographic relocation. 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 fourteen-year period, career advancement was the primary reason for departing followed by geographic relocation and a return to clinical practice.

Table 46. P.A. Program Personnel Turnover:
Reasons for Termination in 1999 Compared to the Fourteen -Year Totals

Reasons for Terminating	1999		14-Year Totals	
	N	(%)	N	(%)
Career Advancement	11	14.9%	174	25.2%
Geographic Relocation	17	23.0%	132	19.1%
Return to Clinical Practice	10	13.5%	117	16.9%
Retired	2	2.7%	39	5.6%
Job Dissatisfaction	3	4.1%	33	4.8%
Returned to School	4	5.4%	30	4.3%
Termination	11	14.9%	25	3.6%
Salary Dissatisfaction	1	1.4%	23	3.3%
Family Obligations	4	5.4%	11	1.6%
Other	11	14.9%	107	15.5%
Total	74	100%	691	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 fourteen-year period, there has been a mean salary increase of 3.1% for newly employed individuals as compared to those departing.

Table 47. Salaries of Departing and Newly Employed Personnel,
1986 Through 1999

<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
14-Year Mean	604	\$43,124	41.1	\$44,476	46.0

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 five months longer (46 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, 2000-2001 (first-year class), 1999-2000 (second-year class) and 1998-1999 (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> (2000-2001)	Mean	39.6	38.2	4.0%	71.9%
	Median	35.5	35.0	3.5%	65.0%
	Range	(10-186)	(10-186)	(0-42%)	(0-100%)
	Number	102	102	102	87
<u>Second-Year Class</u> (1999-2000)	Mean	41.3	37.1	7.5%	73.4%
	Median	35.0	33.0	7.0%	70.0%
	Range	(9-244)	(9-204)	(0-43%)	(0-100%)
	Number	99	99	47	85
<u>Third-Year Class</u> (1998-1999)	Mean	39.1	33.1	20.6%	71.9%
	Median	36.0	29.0	12.5%	70.0%
	Range	(4-120)	(4-75)	(0-37.5%)	(0-100%)
	Number	18	17	17	15
<u>All Classes</u>	Mean	86.5	78.8	7.1%	71.6%
	Median	75.0	71.0	4.5%	60.0%
	Range	(15-390)	(15-390)	(0-61%)	(0-100%)
	Number	102	102	102	90

* Includes both full- and part-time students.

The mean maximum capacity for the first-year class remained about the same as last year (39.9) and is reported as 39.6; the mean maximum capacity for the second-year class increased from last year (from 38.9 to 41.3); and the mean maximum capacity for the third-year class increased from 36.8 to 39.1 students. The maximum capacity for all classes increased by 3.2 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 each category.

The percent of capacity unfilled for the first-year class was 4.0% and 7.5% 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 9 to 244. The maximum capacity for all classes

averaged 86.5 students and with a mean enrollment of 78.8 students, approximately 7.1% of the maximum capacity (all classes) remained unfilled.

Current enrollment in the first-year class averaged 38.2 students per program (102 programs; range 10 to 186) and 37.1 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 36.6, respectively. It should be noted that the enrollment figures include both full-time and part-time students, the latter accounting for only 2.3% of the enrollment. On average, approximately 72% of the students in the first-year and 73% 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 64%. Sixteen programs reported that a "third-year class" was enrolled.

Table 49. Current Enrollment by Gender and Class-Year

	<u>1st Year Class (N=102)</u>			<u>2nd Year Class (N=99)</u>			<u>3rd Year Class (N=16)</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	13.4	35.1%	1-136	13.7	36.9%	3-170	9.0	27.2%	1-22
Female	<u>24.8</u>	<u>64.9%</u>	5- 61	<u>23.4</u>	<u>63.1%</u>	6- 68	<u>24.1</u>	<u>72.8%</u>	3-61
Total	38.2	100%		37.1	100%		33.1	100%	
	<u>1st Year Class (N=6)</u>			<u>2nd Year Class (N=4)</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	4.3	47.8%	1- 7	2.5	27.8%	1- 5	N/A	N/A	N/A
Female	<u>4.7</u>	<u>52.2%</u>	1-18	<u>6.5</u>	<u>72.2%</u>	3-16	N/A	N/A	N/A
Total	9.0	100%		9.0	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. Six programs reported they enrolled part-time students in the first year; four 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.

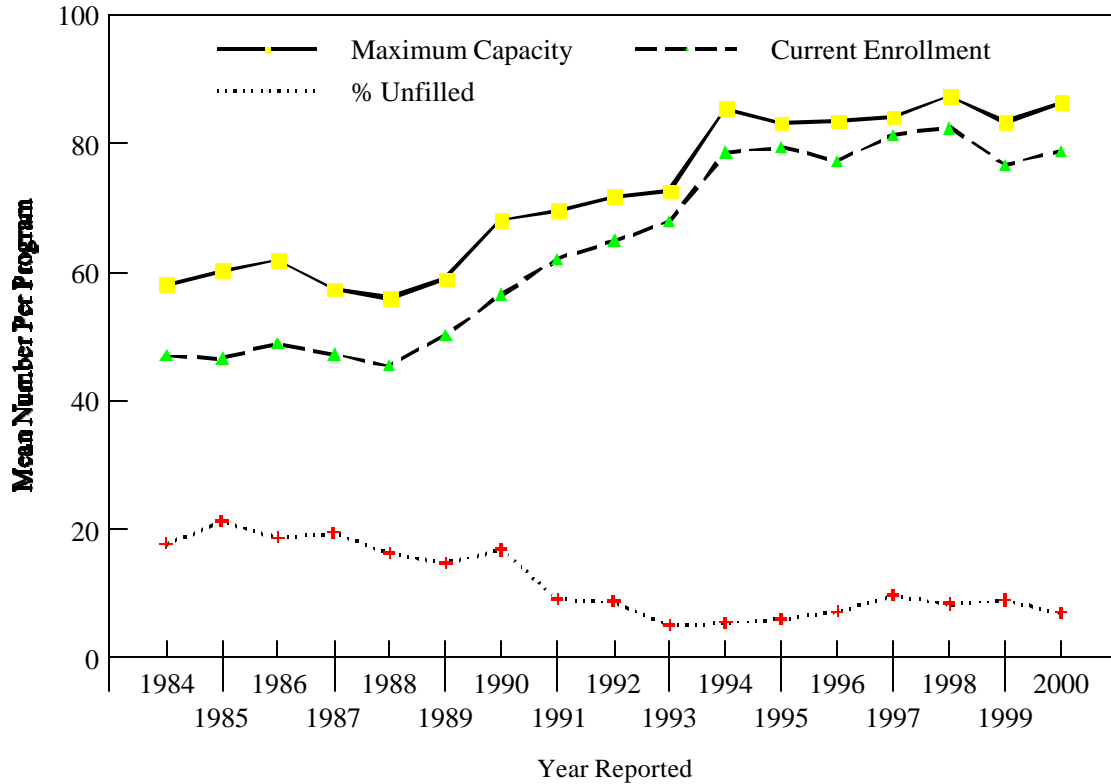
Trends in Maximum Capacity and Student Enrollment

The mean maximum class capacity, total student enrollment and percent of capacity unfilled from 1984 through 2000 are shown in Table 50 (next page). Maximum capacity over the past seventeen years averaged 72 students for all classes and ranged from 56.1 to 87.4. The percent of capacity that remained unfilled varied around a mean of 11.9%, 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 twelve years (1989-2000) enrollment averaged 71.4 and showed an overall increase of 64%, from 50.2 students to 82.5 students. This current year has seen an increase in the current enrollment/program by 3%.

Table 50. Total Student Enrollment of All Classes, 1984 Through 2000

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%
<u>2000-2001</u>	<u>102</u>	<u>86.5</u>	<u>78.8</u>	<u>7.1%</u>
17-Yr. Mean	64.1	72.3	64.3	11.9%

Figure 11. Trends in Enrollment: 1984 Through 2000



P.A. Applicants and Students Enrolled

The number of applicants and those enrolled in the most recent P.A. class (2000-2001) 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 199.7 applications for the class entering in 2000-2001, ranging from 25 to 621 applicants. This represented a 16.3% decrease (39 applicants/program) from the 239 applicants per program the previous year.

Table 51. Applicant and Student Characteristics, Class of 2000-2001

	Number	Number	Number Enrolled		
	<u>Applicants</u>	<u>Accepted</u>	<u>F.T.*</u>	<u>P.T.*</u>	<u>Total</u>
Mean	199.7	48.5	39.6	0.5	40.1
Median	165.0	40.0	32.0	0.0	32.0
Range	25-621	10-186	10-186	0-23	10-186
# Programs	80	91	101	101	101

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

On average, 48.5 students were accepted and 40.1 students per program were enrolled in the first-year class (101 programs; range from 10-186); only 1.2% were part-time students (0.5/program). These findings mark an increase (22%) in first-year enrollment over the 17-year average (i.e., 40.1/program versus an average of 32.8/program). Twenty-four percent of the applicant pool was accepted (48.5/199.7) and of these, 82% were enrolled (39.6/48.5), thus an average of 18% of those accepted elected not to enroll in a particular program. Overall, 20% of the applicants were enrolled in 2000 (40/200). The ratio of applicants to enrollees was over 5.0:1, a lower ratio than the 6.1:1 value in the previous year.

Applicants and Students Enrolled by Consortia Region

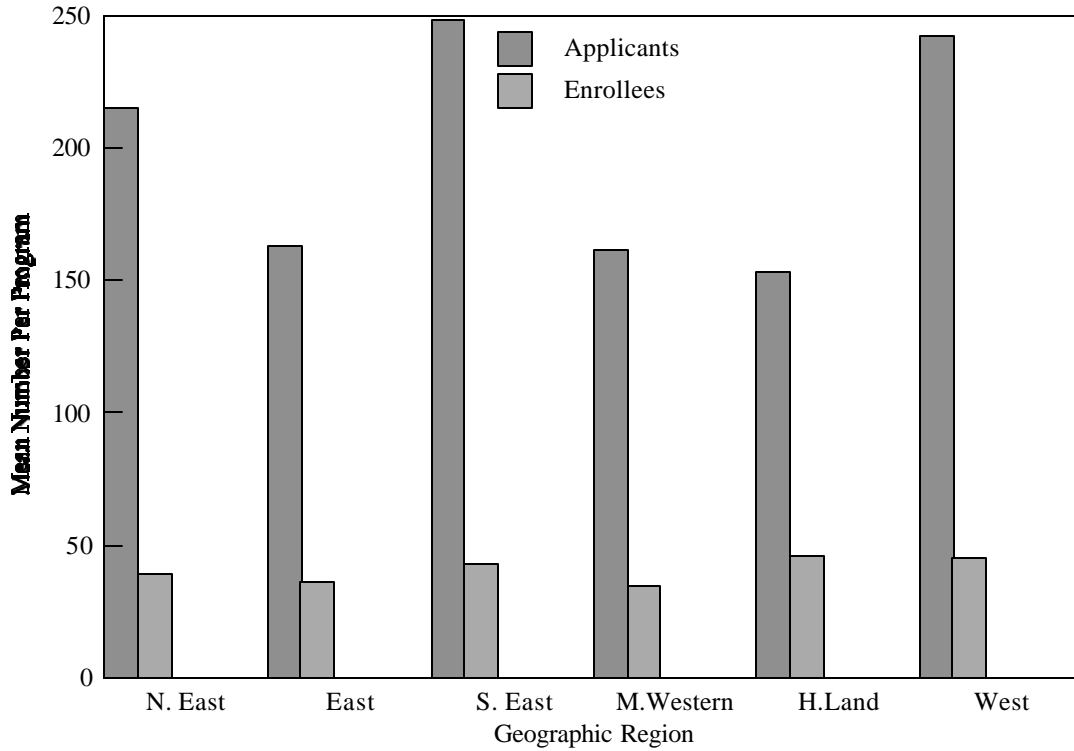
A comparison between the mean number of applicants by consortia region is shown in Table 52 and Figure 12 (next page), 'N' indicates the number of programs responding. Programs in the Southeastern region averaged 248 applicants per program, while programs in the Heartland region, 153 per program. The Heartland region had the largest decrease in the number of applicants from last year (29.3%). The Eastern and Southeastern regions showed slight increases in the average number of applicants.

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	16	215.1	- 23.8%	21	39.3	5.5:1
Eastern	11	162.6	+ 1.6%	16	36.1	4.5:1
Southeastern	15	248.3	+ 0.6%	15	43.1	5.8:1
Midwestern	17	161.3	- 10.7%	22	35.0	4.6:1
Heartland	9	152.9	- 29.3%	12	45.8	3.3:1
Western	<u>12</u>	<u>241.8</u>	<u>- 25.3%</u>	<u>15</u>	<u>45.1</u>	<u>5.4:1</u>
Total	80	199.7	- 16.4%	101	40.1	5.0:1

The largest number of enrollees was in the Heartland region (45.8) and the smallest number was in the Midwestern region (35.0).

Figure 12. Applicants and Students Enrolled by Region, 2000-2001



Trends in P.A. Student Enrollment, 1983 Through 2000

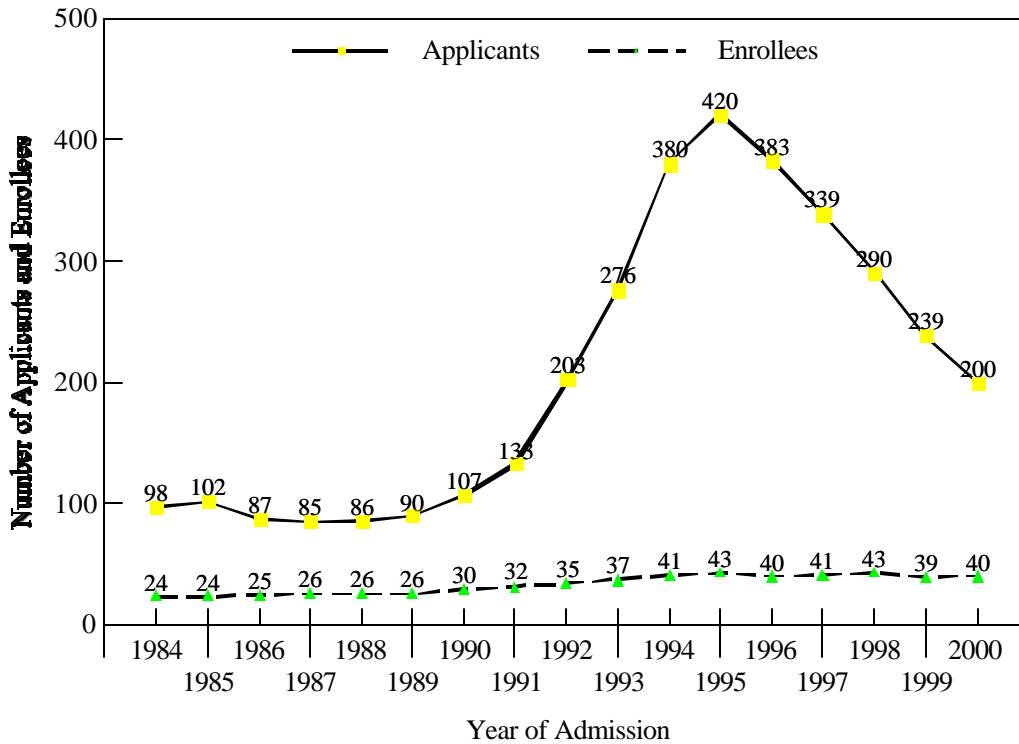
The number of applicants and students enrolled in P.A. programs for the eighteen-year period from 1983 through 2000 are shown in Table 53 and Figure 13 (next page).

Table 53. P.A. Applicants and Students Enrolled, 1983 Through 2000

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
<u>2000-2001</u>	<u>199.7</u>	<u>80</u>	<u>48.5</u>	<u>91</u>	<u>40.1</u>	<u>101</u>	<u>5.0:1</u>
18-Yr. Mean	206.9	48	39.5	56	33.0	62	6.0:1

From 1984 through 2000 the number of the applicants ranged from 84.7 to 419.5 persons, and averaged 207.3 over the seventeen-year period. Figure 13 illustrates the trends in the number of applicants and students enrolled from 1984 through 1999.

Figure 13. Trends of Applicants and Students Enrolled: 1983 Through 2000



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 52%. There had also been a systematic increase in enrollees from 1984 through 1995. Since then, the mean number enrolled has fluctuated between 39 and 43. The average number of enrollees over the eighteen-year period is 33.0 students/program.

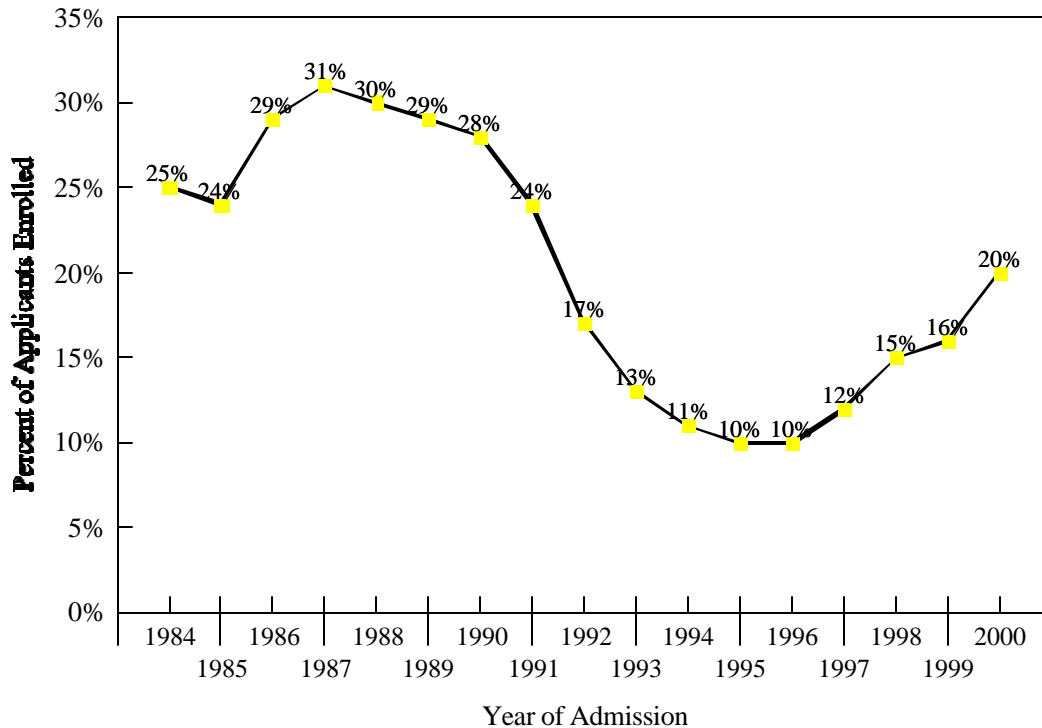
The mean number and relative proportion of male and female students enrolled in P.A. programs over the past eighteen years are shown in Table 54 (next page). The proportion of female and male P.A. students enrolled from 1983 through 2000 remained relatively constant, averaging 61.1% and 39.2%, respectively. 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 20% in 2000.

Table 54. First-Year Class Enrollment, 1983 Through 2000

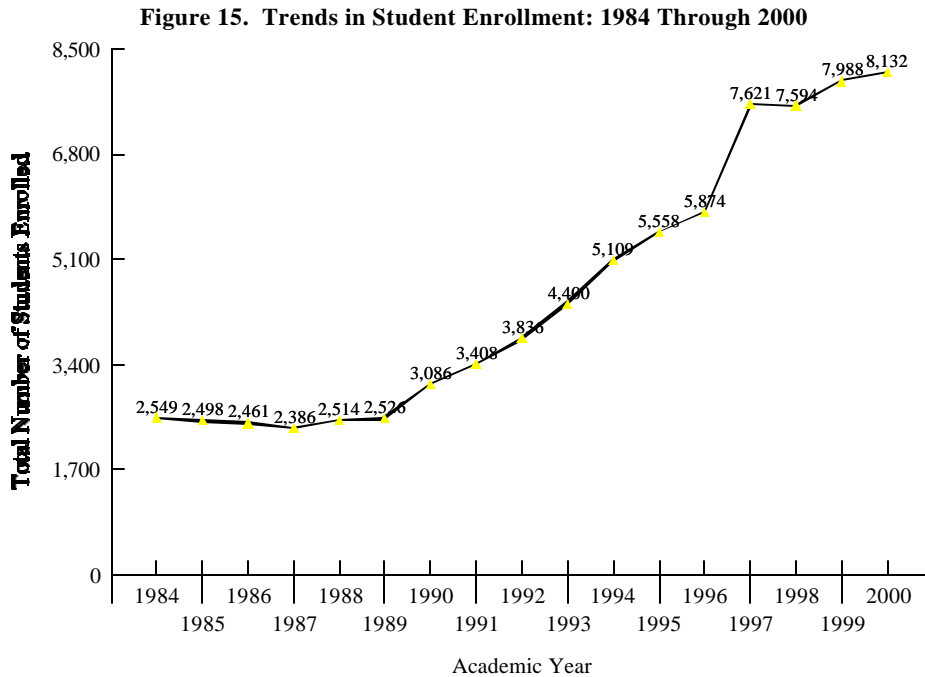
Academic Year	N	Female		Male		Total	
		Mean	(%)	Mean	(%)	Mean	N
1983-1984	39	13.6	58.4%	9.7	41.6%	24.0	43
1984-1985	39	14.6	61.6%	9.1	38.4%	24.1	43
1985-1986	42	15.3	63.0%	9.0	37.0%	24.3	41
1986-1987	44	15.5	62.2%	9.4	37.8%	24.9	47
1987-1988	47	15.7	61.6%	9.9	38.4%	25.6	47
1988-1989	46	16.2	62.3%	9.8	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
<u>2000-2001</u>	<u>102</u>	<u>24.8</u>	<u>64.9%</u>	<u>13.4</u>	<u>35.1%</u>	<u>38.2</u>	<u>102</u>
18-Yr Mean	61	19.7	61.1%	12.6	39.2%	32.5	62

Figure 14. Trends in Percent of Applicants Enrolled: 1984 Through 2000



Total Enrollment in P.A. Programs

Figure 15 illustrates the trends in total student enrollment from 1984 through 2000. 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 102 programs we estimate total enrollment to be 8,132 in 2000. (The calculations were as follows, 1st yr. $102 \times 38.2 = 3,896$, 2nd yr. $99 \times 37.1 = 3,673$ and 3rd yr. $17 \times 33.1 = 563$). If one would estimate 1st year enrollment based upon 126 programs, first year enrollment would be $126 \times 38.2 = 4,813$, an increase of 917 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%. 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); and 126 in 2000.

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 (28%) of the number of applicants was less than 24 years of age. Approximately 42% of the applicants were between 24-29 years. Over one-third of the students enrolled in the first-year class were over 30 years of age; over one-half were between the ages of 20 and 29 and less than 3% were under 20 years of age.

Table 55. Applicants and Enrollees by Age, Class of 2000-2001

Age	All Applicants		Number Accepted		Number Enrolled	
	Mean (N=71)	(%)	Mean (N=87)	(%)	Mean (N=98)	(%)
Under 20	2.6	1.4%	2.1	4.5%	1.0	2.5%
20-23	50.5	27.9%	11.2	23.9%	9.5	24.2%
24-26	48.7	26.9%	10.9	23.2%	9.0	22.9%
27-29	28.1	15.5%	7.4	15.8%	6.5	16.5%
30-33	19.2	10.6%	6.2	13.2%	5.3	13.5%
Over 33	<u>31.8</u>	<u>17.6%</u>	<u>9.1</u>	<u>19.4%</u>	<u>8.0</u>	<u>20.4%</u>
Total	199.7	100.0%	48.5	100.0%	40.1	100.0%
	(N=80)*		(N=91)		(N=101)	

* Number of programs reporting.

Students Enrolled by Age and Consortia Region

The distribution of students enrolled in the 2000-2001 class by age and consortia region is shown in Table 56. The table reports the percentage of students per program (N=98 programs) in each age category. Students enrolled in those programs located in the Eastern region tended to be younger than those in other regions, 35% were 23 years of age or less. Conversely, students in the Western region were notably older than P.A. students in other regions, 30.1% were over 33 years of age.

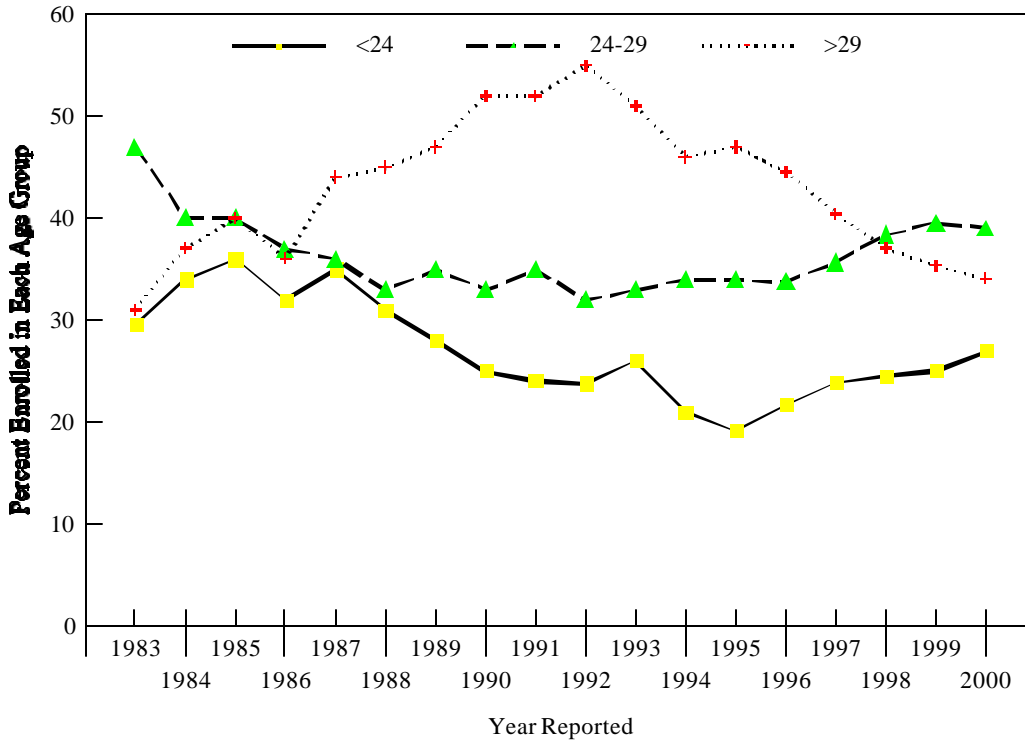
Table 56. P.A. Student Enrollment by Age and Region, Class of 2000-2001

Consortia	Age at Application					
	< 20 (%)	20-23 (%)	24-26 (%)	27-29 (%)	30-33 (%)	>33 (%)
Northeastern	1.7%	29.5%	28.2%	14.4%	14.8%	11.4%
Eastern	8.4%	26.8%	24.7%	13.7%	13.2%	11.2%
Southeastern	0.3%	24.2%	25.0%	16.4%	16.5%	17.6%
Midwestern	1.4%	30.5%	20.6%	12.3%	12.3%	22.9%
Heartland	0.0%	23.8%	21.6%	15.6%	11.9%	17.1%
Western	<u>0.0%</u>	<u>13.6%</u>	<u>22.3%</u>	<u>16.1%</u>	<u>18.0%</u>	<u>30.1%</u>
Total	2.5%	24.2%	22.9%	16.5%	13.5%	20.4%

Trends in Enrollment by Age

Trends in the age of enrolled students from 1983 to 2000 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% 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 39.4%. 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 34% of enrollees. This is the third 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 2000



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 27.9, accepted applicant age was 28.2, full-time student age was 28.1 and the average age for the part-time student was 35.3.

Table 57 lists average ages of these categories by consortia region. The Western region had the highest average age of applicants (30.7). The Western region had the highest average age of accepted applicants (31.7) and full-time students (31.9). The Eastern region had the lowest average age of applicants (25.8), accepted applicants (26.0) and full-time students (25.2).

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 Age	N	Average Age	N	Average Age
Northeastern	17	27.8	19	27.3	21	27.6	1	-----
Eastern	11	25.8	13	26.0	15	25.2	1	-----
Southeastern	12	27.8	14	27.8	15	27.8	1	-----
Midwestern	13	28.0	19	29.0	20	28.7	2	29.8
Heartland	7	27.2	11	27.4	12	27.6	0	-----
Western	12	30.7	12	31.7	14	31.9	0	-----
Total	72	27.9	88	28.2	97	28.1	5	35.3

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 (72.9%) were White/Non-Hispanic; 7.0% were Black/African-American, 6.4% were Latino/Hispanic, 8.7% 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=102)		(N=102)
White/Non-Hispanic	138.4	72.9%	30.2	75.1%	0
Black/African-American	13.3	7.0%	2.5	6.2%	38
Latino/Hispanic/Mex. Am.	12.1	6.4%	2.8	7.0%	31
Asian	16.5	8.7%	2.4	6.0%	27
Asian Subpopulation	1.2	0.6%	0.4	1.0%	82
Native Hawaiian/Other P.I.	2.0	1.1%	0.5	1.2%	76
American Ind./Alaskan	0.2	0.1%	0.1	0.2%	93
Other	<u>6.2</u>	<u>3.3%</u>	<u>1.3</u>	<u>3.2%</u>	<u>75</u>
Total (N=80)	199.7	100%	39.6	100%	3

Overall, 27% of the applicants were members of an ethnic minority, 26% of whom were Black/African-American. Among those enrolled, 75.1% were White/Non-Hispanic and the remainder (24.9%) 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, 27% of the applicants and 25% of those enrolled were described as an ethnic minority. Thirty-eight of the 102 program respondents (37.3%) did not enroll any Black/African-American students and thirty-one programs did not enroll any Hispanic students. Three programs (2.9%) did not enroll any type of minority student in 2000.

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	138.0	65.6%	72.3	34.4%	29.4	71.4%	11.8	28.6%
Eastern	136.7	80.3%	33.5	19.7%	32.4	86.6%	5.0	13.4%
Southeastern	179.5	72.3%	68.8	27.7%	30.9	75.7%	9.9	24.3%
Midwestern	112.4	84.8%	20.2	15.2%	29.2	86.1%	4.7	13.9%
Heartland	104.4	77.7%	29.9	22.3%	33.9	74.0%	11.9	26.0%
Western	<u>150.8</u>	<u>63.7%</u>	<u>85.9</u>	<u>36.3%</u>	<u>27.4</u>	<u>58.2%</u>	<u>19.7</u>	<u>41.8%</u>
Total	138.4	72.9%	51.5	27.1%	30.2	75.1%	10.0	24.9%

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 36% and the Midwestern region the least number, with only 15% being non-white. The Western region enrolled the largest percentage (42%) of non-white students. Programs in the Eastern region had the fewest number of non-white enrollees (13.4%).

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

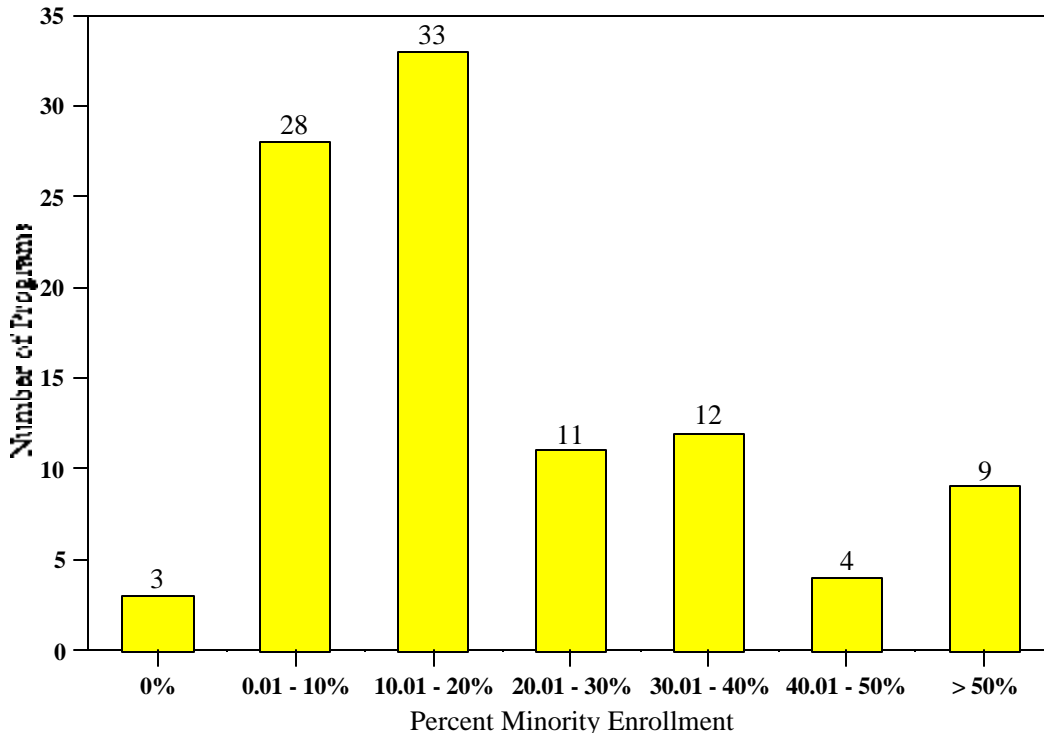
Table 60. Number of Programs with No Minority Enrollment by Consortia Region

<u>Consortia Region</u>	<u>N</u>	<u># of Programs</u>	<u>(%)</u>
Northeastern	21	1	4.8%
Eastern	15	0	0.0%
Southeastern	17	1	5.9%
Midwestern	22	1	4.5%
Heartland	12	0	0.0%
Western	<u>15</u>	<u>0</u>	<u>0.0%</u>
Total	102	3	2.9%

Number of Programs versus Percent Minority Student Enrollment

Figure 17 represents the number of programs with certain percentages of minority enrollment. There are 31 programs who have a larger percentage of minority enrollment than the mean of 24.9%; 71 programs have less. The average minority enrollment for programs with greater than 20% is 43.0%; for programs with less than 20% minority enrollment, 10.8%.

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



Trends in Minority Student Enrollment, 1983 Through 2000

The proportion of minority and non-minority students enrolled in P.A. programs over a eighteen-year period (1983-84 through 2000-2001) 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 2000

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
<u>2000-2001</u>	<u>102</u>	<u>30.2</u>	<u>75.1%</u>	<u>10.0</u>	<u>24.9%</u>	<u>40.1</u>
18-yr. Mean	61	26.3	79.7%	6.7	20.3%	32.8

Minority student enrollment over eighteen years has averaged 20.3% 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 (70.7%) of the students enrolled in 2000 had earned at least a baccalaureate degree (64% as their highest degree) while less than one-fifth (17.4%) entered with no academic degree. Only 12% of the enrollees had earned an associate level degree prior to entry. Of the full-time students, 6.3% were admitted with a graduate-level degree, predominantly a masters degree (5.0%).

Figure 18. Trends in Minority Student Enrollment: 1983 Through 2000

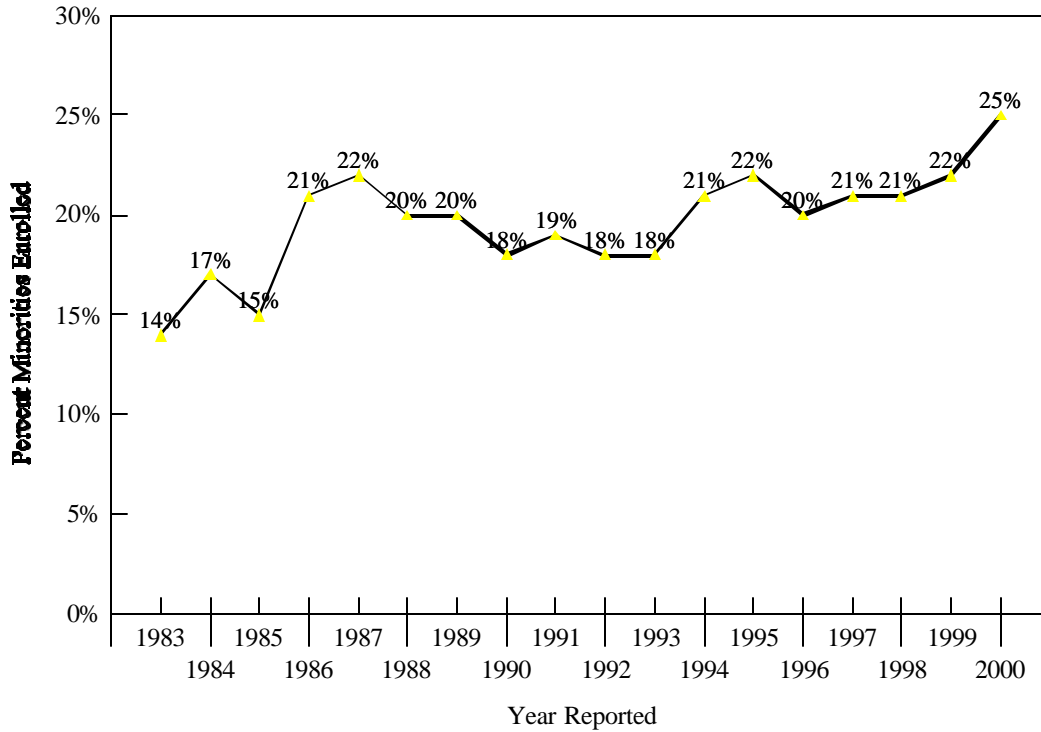
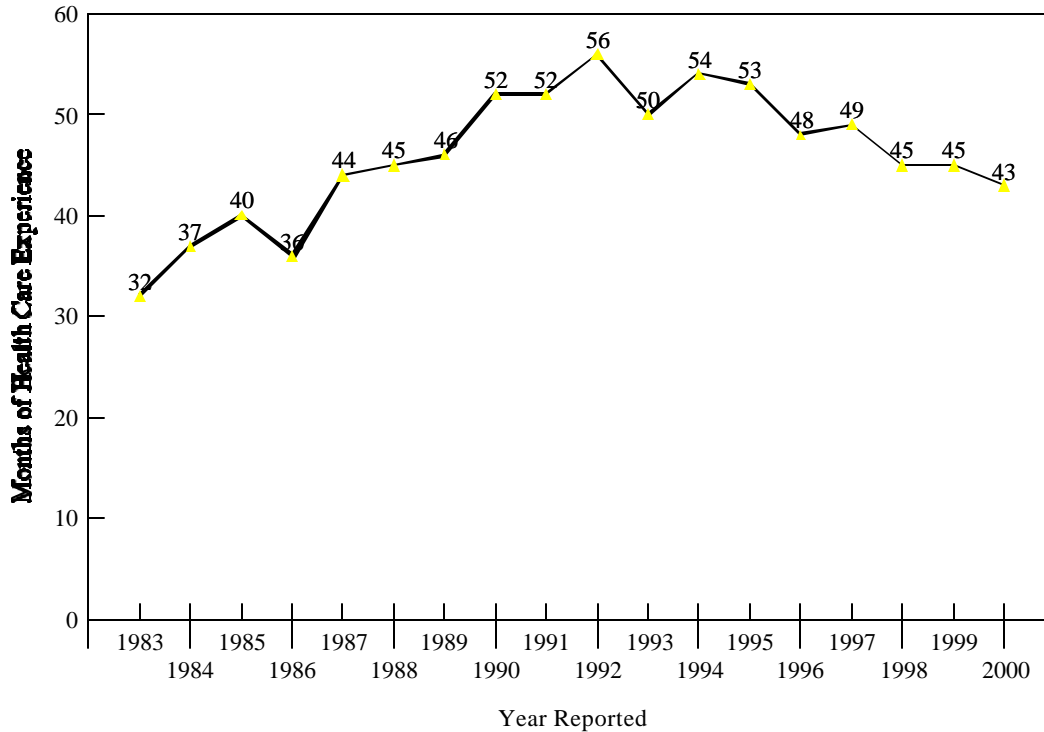


Table 62. Academic Characteristics of P.A. Students Enrolled in 2000

Highest Academic Credential Earned	Full-Time		Part-Time		Total	
	Mean	%	Mean	%	Mean	%
No Academic Degree	6.7	17.6%	0.0	0.0%	6.7	17.4%
Associate Degree	4.5	11.8%	0.1	20.0%	4.6	11.9%
Baccalaureate Degree	24.5	64.3%	0.3	60.0%	24.8	64.2%
Masters Degree	1.9	5.0%	0.1	20.0%	2.0	5.2%
Doctoral Degree	0.5	1.3%	0.0	0.0%	0.5	1.3%
Total	36.4	100.0%	0.5	100.0%	38.6	100.0%

The mean number of months of health care experience (H.C.E.) of students at the time of enrollment for 2000-2001 is 43.2 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 2000.

Figure 19. Trends in Health Care Experience of Enrollees: 1983 Through 2000



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 (34%). The Eastern region had 2.8% of its enrollees with a doctoral degree.

Table 63. Academic Characteristics of Enrollees by Region, Class of 2000-2001

Consortia Region	N	Degree Characteristics					Total Mean
		No Degree	Associate Degree	Bacc. Degree	Masters Degree	Doctoral Degree	
Northeastern	20	27.7%	9.3%	57.8%	4.8%	0.4%	37.0
Eastern	14	33.8%	6.0%	52.3%	5.1%	2.8%	36.5
Southeastern	16	12.5%	14.6%	66.3%	4.9%	1.7%	40.8
Midwestern	23	13.0%	14.9%	66.8%	4.2%	1.1%	33.3
Heartland	11	19.5%	9.1%	66.6%	4.4%	0.4%	36.4
Western	14	5.5%	11.5%	72.7%	7.9%	2.4%	47.1
Total	98	17.4%	11.9%	64.2%	5.2%	1.3%	38.1

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 2000-2001

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	20	3.26	0.16	17	31.8	16.9
Eastern	14	3.45	0.20	12	42.6	22.0
Southeastern	15	3.40	0.11	15	37.9	17.1
Midwestern	23	3.40	0.20	22	51.8	32.3
Heartland	10	3.46	0.20	8	33.6	15.7
Western	<u>12</u>	<u>3.30</u>	<u>0.24</u>	<u>11</u>	<u>62.0</u>	<u>29.6</u>
Total	94	3.37	0.18	86	43.2	26.3

The cumulative GPA of entering students ranged from 3.26 to 3.46 with a mean of 3.37. 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 32 months of health-related experience while those entering programs in the Western regions had 62 months of health care experience. The average for all programs was under four years (43.2 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 2000-2001 class is shown in Table 65. The total number of UMG applications to P.A. programs increased from 170 in 1999 to 286 in 2000. The number per program also increased from 2.2/program in 1999 to 3.6/program in 2000. There were 28 programs that received applications from UMG's in 2000. Seventy-two percent of the applicants were U.S. Citizen UMG's.

Table 65. Admission of Unlicensed Medical Graduates

Citizenship Status	Class Entering in 2000 – 2001					
	Applied			Enrolled		
	<u>N(N)*</u>	<u>Mean**</u>	<u>%</u>	<u>N(N)*</u>	<u>Mean</u>	<u>%</u>
U.S. Citizen	207(33)	2.6	72.2%	88(29)	0.94	63.1%
Alien	<u>79(20)</u>	<u>1.0</u>	<u>27.8%</u>	<u>52(17)</u>	<u>0.55</u>	<u>36.9%</u>
Total**	286(28)	3.6	100.0%	140(18)	1.49	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

One hundred forty UMG's were enrolled in 2000, double the enrollees in 1999 (65). Forty-nine percent of the UMG applicants were enrolled in a P.A. program in 2000, where only 38% were enrolled in 1999. This year, a higher percentage of alien UMG's were admitted (65.8%) as compared to the U.S.-citizen UMG's (42.5%).

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 5.64/program) while programs in the Midwestern region averaged 0.83/program UMG applicants.

Table 66. Unlicensed Medical Graduate Applicants and Enrollees by Region, 2000-2001

<u>Consortia Region</u>	<u>Applied</u>		<u>Enrolled</u>	
	<u>Mean</u>	<u>N</u>	<u>Mean</u>	<u>N</u>
Northeastern	2.74	17	0.65	18
Eastern	3.33	12	1.00	15
Southeastern	5.33	15	1.06	16
Midwestern	0.83	17	1.68	20
Heartland	4.22	7	0.17	11
Western	<u>5.64</u>	<u>11</u>	<u>4.00</u>	<u>14</u>
Total	3.60	79	1.49	94

Programs in the Western region enrolled the largest proportion of UMG's enrolled (4.00/program/region) and those in the Heartland region had 0.17/program UMG's enrolled. With respect to the total applicantly 1.8% (3.6/200) of all applicants and less than 3.9% (1.5/38) of all first-year enrollees in 2000.

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 (41/79; 52%) and a majority did not enroll an UMG (60/94; 63.8%) in the 2000-2001 class.

Table 67. Number of Programs Reporting No Applications and/or Enrollment of Unlicensed Medical Graduates by Region, 2000-2001

<u>Consortia Region</u>	<u>Applied</u>		<u>Enrolled</u>	
	<u>N/N*</u>	<u>%</u>	<u>N/N*</u>	<u>%</u>
Northeastern	9/17	52.9%	15/18	83.3%
Eastern	5/12	41.7%	9/15	60.0%
Southeastern	7/15	46.7%	10/16	62.5%
Midwestern	13/17	76.5%	11/20	55.0%
Heartland	3/ 7	42.9%	10/11	90.9%
Western	<u>4/11</u>	<u>36.4%</u>	<u>5/14</u>	<u>35.7%</u>
Total	41/79	51.9%	60/94	63.8%

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

Trends in UMG Applications and Enrollment, 1987 Through 2000

Data concerning UMG applicants and UMG students enrolled from 1987 through 2000 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 2,214 UMG applicants (averaging 158/year) over the fourteen-year period examined. UMG applicants accounted for an average of 1.5% of the total applicant pool. Over the same period of time, there were 462 UMG's enrolled (33/year) which accounted for 1.4% of the total number of students enrolled. On average, only 20% of the UMG applicants were enrolled. This is only the second year since 1990 that there has been over 35% of the UMG applicants enrolled.

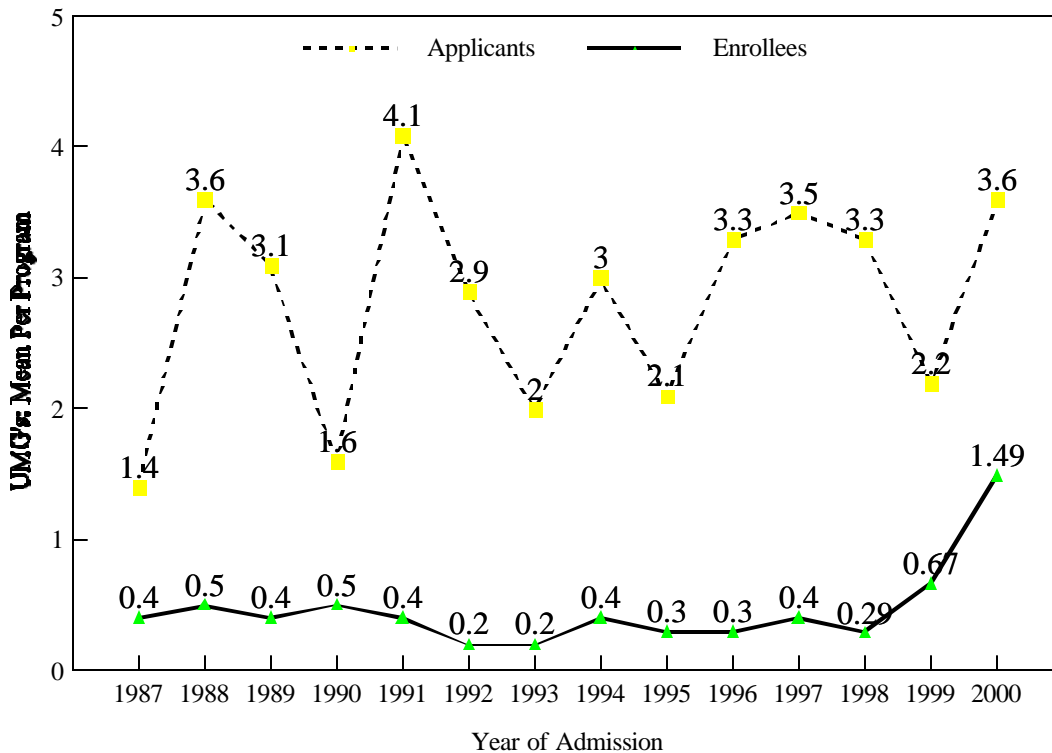
Table 68. Unlicensed Medical Graduates: Applicants and Enrollees, 1987 Through 2000

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	<u>286</u>	<u>3.6</u>	<u>1.8%</u>	<u>140</u>	<u>1.49</u>	<u>3.9%</u>	<u>41.4%</u>
14-Yr. Mean	158	2.9	1.5%	33	0.46	1.4%	20.0%

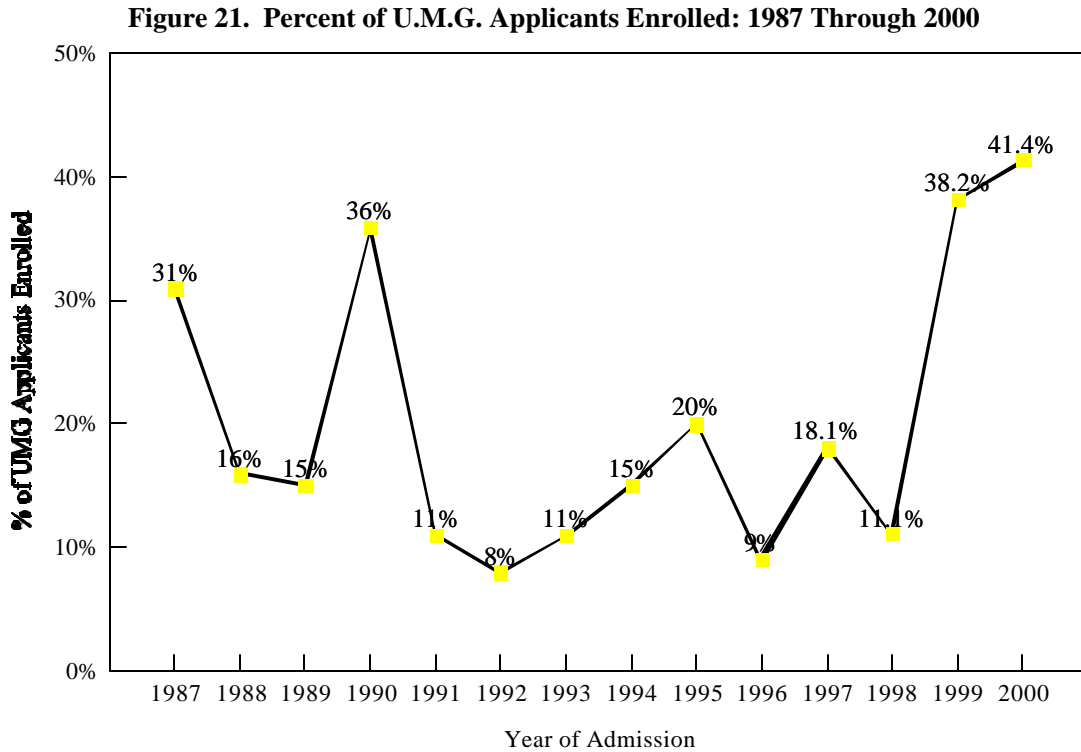
* Proportion of UMG's to total applicants and enrollees, respectively.

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 2000



As shown in Figure 21 the percent of UMG applicants enrolled increased to a high of 41.4% in 2000.



Disabled Students Enrolled in P.A. Programs

The number and proportion of students with a disability that were enrolled in the 2000-2001 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 1.5% of the total number of students enrolled).

Table 69. Enrollment of Disabled Students by Gender, 2000-2001

<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	1352	34.6%	30	50.0%	102
Female	2558	65.4%	30	50.0%	102
Total	3910	100.0%	60	100.0%	102

There were the same number of disabled female students and 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 2000-2001 academic year, and those withdrawing and decelerating prior to graduation, are shown in Table 70. The mean number of 2000 graduates was 38.2/program and represented 93% of the students originally enrolled in this class. We estimate that there was a total of 4,393 P.A.'s graduated from all programs graduating class in 2000 (115 programs x 38.2/program). It should be noted that eleven of the new programs did not graduate students in 2000. Our estimated value for 2000 graduates was similar to the number reported as takers of the 2000 National Certifying Examination (i.e., N=3,936). As in previous years, the majority (62%) of 2000 graduates were women.

Table 70. Number of Graduates and Students Withdrawn or Decelerated in 2000-2001 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	23.7	92.9%	1.1	4.3%	0.7	2.7%
Male	14.5	94.2%	0.6	3.9%	0.3	1.9%
Total/Program	38.2	93.4%	1.7	4.2%	1.0	2.4%

* 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".

The mean number of students withdrawing prior to graduation was 1.7 students/program for an overall attrition rate of 4.2%. The attrition rate for males was lower than the attrition rate for females, 3.9% and 4.3% respectively. The attrition rate was higher than in 1999 (3.9%) and considerably lower than the average of 7.8% over the previous seventeen years.

On average, the rate of deceleration was 2.4%. 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 132 students withdrawing from the 2000 graduating class (as reported by 46 programs). The most common reasons for withdrawal were academic (55.3%) and personal (26.5%). 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	73	55.3%	Career Change	7	5.3%
Personal	35	26.5%	Medical	3	2.3%
Financial	8	6.1%	Other	6	4.5%
	Total	132		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 58.3 students per program, while programs in the Midwestern regions had the smallest graduating class (34.5/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	19	34.9	1.5	4.0%	1.2	3.2%
Eastern	12	36.0	2.7	6.7%	1.6	4.0%
Southeastern	12	34.8	1.2	3.3%	0.1	0.3%
Midwestern	17	34.5	1.9	5.1%	0.9	2.4%
Heartland	7	58.3	2.1	3.4%	1.3	2.1%
Western	<u>12</u>	<u>42.1</u>	<u>0.8</u>	<u>1.8%</u>	<u>0.8</u>	<u>1.8%</u>
Total	79	38.2	1.7	4.2%	1.0	2.4%

The highest attrition rates occurred in those programs located in the Eastern region (6.7%) while programs in the Western region had the lowest attrition rates (1.8%). In comparison to the previous year, the number graduated/program in 2000 has increased (7.0%). The rate of attrition increased in two of the six regions (Eastern and Midwestern); deceleration increased in two regions (Northeastern and Western). Programs in the Eastern region reported the largest rate of deceleration (4.0%), while programs in the Southeastern region had the lowest rate of deceleration (0.3%).

The reasons for withdrawal by region are shown in Table 73. Programs in the Eastern region had the highest percentage of students withdraw for academic reasons (68.8%) while programs in the Heartland region cited academic reasons for withdrawal 26.7% of the time. In the Heartland region, 73.3% of the programs cited personal reasons for student withdrawal as compared with 9.7% in the Midwestern region.

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	16	55.2%	7	24.1%	6	20.7%	29
Eastern	22	68.8%	5	15.6%	5	15.6%	32
Southeastern	8	57.1%	3	21.4%	3	21.4%	14
Midwestern	19	61.3%	3	9.7%	9	29.0%	31
Heartland	4	26.7%	11	73.3%	0	0.0%	15
Western	<u>4</u>	<u>36.4%</u>	<u>6</u>	<u>54.5%</u>	<u>1</u>	<u>9.1%</u>	<u>11</u>
Total	73	55.3%	35	26.5%	24	18.2%	132

Graduation, Attrition, and Deceleration of Students by Age

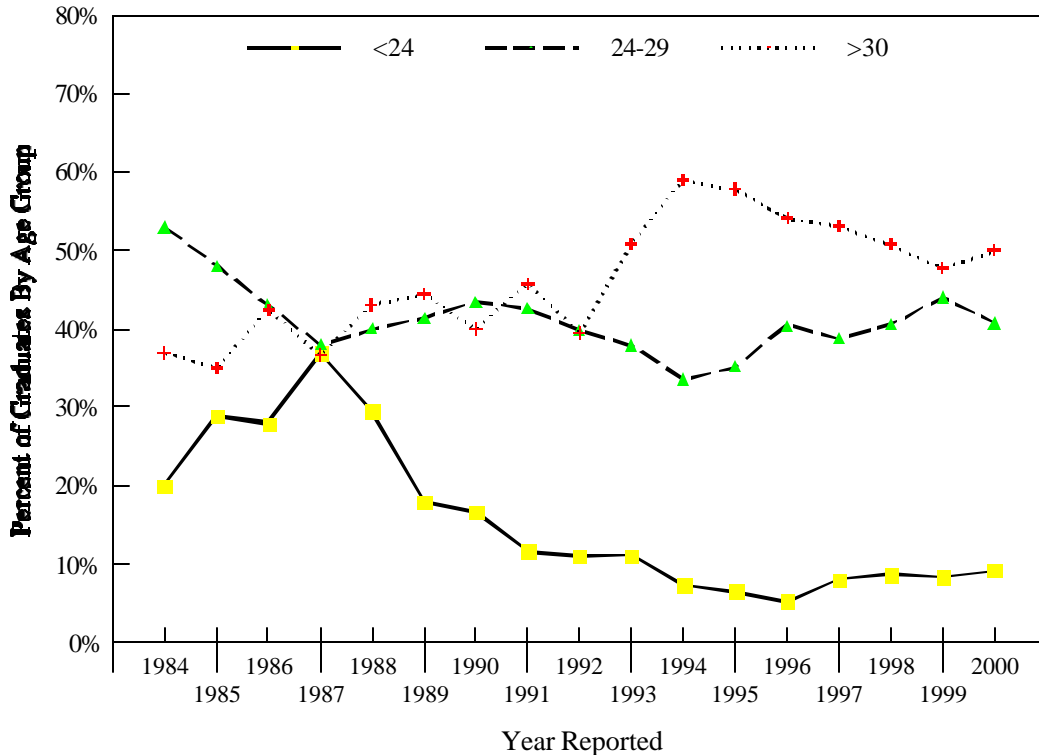
The mean number of graduates, attrition rates, and students decelerated for each age category is shown in Table 74. More than one-fourth (30.4%) of the graduates were between the ages of 20 and 26 upon graduation; 50% were 30 years of age or older and none were under the age of 20. Attrition was highest for those between 20 and 23 years of age; lowest for those between 30 and 33. Deceleration rates were highest for students over 33 years of age and least for those under 23 years.

Table 74. Number Graduated, Decelerated and Attrition Rates of 2000 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	79	0.0	0.0%	0.0	0.0%	0.0%	0.0	0.0%
20-23	79	3.5	9.2%	0.4	23.5%	10.3%	0.0	0.0%
24-26	79	8.1	21.2%	0.3	17.6%	3.5%	0.1	1.2%
27-29	79	7.5	19.6%	0.3	17.6%	3.8%	0.1	1.3%
30-33	79	6.6	17.3%	0.2	11.8%	2.9%	0.1	1.4%
Over 33	79	12.5	32.7%	0.5	29.4%	3.6%	0.7	5.1%
Total/Program	79	38.2	100%	1.5	100.0%	4.2%	1.0	2.4%

Figure 22 shows the trends in age from 1984 through 2000. 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 31% since 1994. The graduates in the older age group (>30) have decreased 19% since 1994.

Figure 22. Trends in the Age of Graduates: 1984 Through 2000



The mean number of graduates, withdrawals, decelerated students and attrition rates for the 2000 graduating class by ethnicity is shown in Table 75. The majority of the recent graduates were White/Non-Hispanic (82.7%) and less than one-fifth (17.3%) were minorities.

Table 75. Number and Attrition Rates of 2000 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	79	31.6	82.7%	1.2	70.6%	3.6%	0.6	1.8%
Black/African-Amer.	79	1.6	4.2%	0.2	11.8%	10.5%	0.1	5.3%
Latino/Hispanic/Mex. Am.	79	2.0	5.2%	0.1	5.9%	4.5%	0.1	4.5%
Asian	79	1.7	4.5%	0.1	5.9%	5.3%	0.1	5.3%
Asian Subpopulations	79	0.3	0.8%	0.0	0.0%	0.0%	0.0	0.0%
Native Haw./Other P.I.	79	0.1	0.3%	0.0	0.0%	0.0%	0.0	0.0%
American Ind./Alaskan	79	0.3	0.8%	0.1	5.9%	25.0%	0.0	0.0%
Other/Unknown	79	0.6	1.6%	0.1	5.9%	12.5%	0.1	12.5%
Total/Program	79	38.2	100.0%	1.7	100.0%	4.2%	1.0	2.4%

Within the minority groups graduating, 24.2% were Black/African-American, 30.3% were Latino/Hispanics, 25.8% were Asian and the remainder were classified as Asian Subpopulation, Alaskan/Native American or Other/Unknown. Fifty-nine percent (N=47) of the 79 programs reported at least one Black/African-American among their 2000 graduates. Forty (50.6%) programs also graduated at least one Latino/Hispanic.

The American Indian/Alaskan students had the highest rate of attrition (25.0%), followed by Black/African-American students (10.5%). The White/Non-Hispanics had an attrition rate of 3.6%. Proportionately, minority students were more likely to be decelerated, particularly the Black/African-American and Asian students (5.3%) as compared to White students (1.8%).

Trends in Student Attrition: 1984 Through 2000

Figure 23 (next page) shows the relative attrition rates from 1984 through 2000 for all students and for white and non-white students. Attrition rates have averaged 7.8% over the past seventeen years, ranging from a high of 14% in 1988 to a low of 3.9% in 1999. The 2000 attrition rate for white students was 3.6% and 7.9% for non-white students; the latter represents an increase from 1999. Before 1990, decelerated students were included in the attrition rates. If decelerated students were included this year, the adjusted attrition rate would be 6.2%. The rate of attrition has been over twice as high for non-white students, averaging 14.9% as compared to 6.8% for white students.

Sex and Ethnicity of 2000 P.A. Graduates by Consortia Region

The mean number and proportion of 2000 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 (25%) than from programs located in the Eastern region (7.4%). The Western region had the highest proportion of male graduates (39%) and the Midwestern region the highest proportion of female graduates (69%).

Figure 23: Trends in Student Attrition: 1984 Through 2000

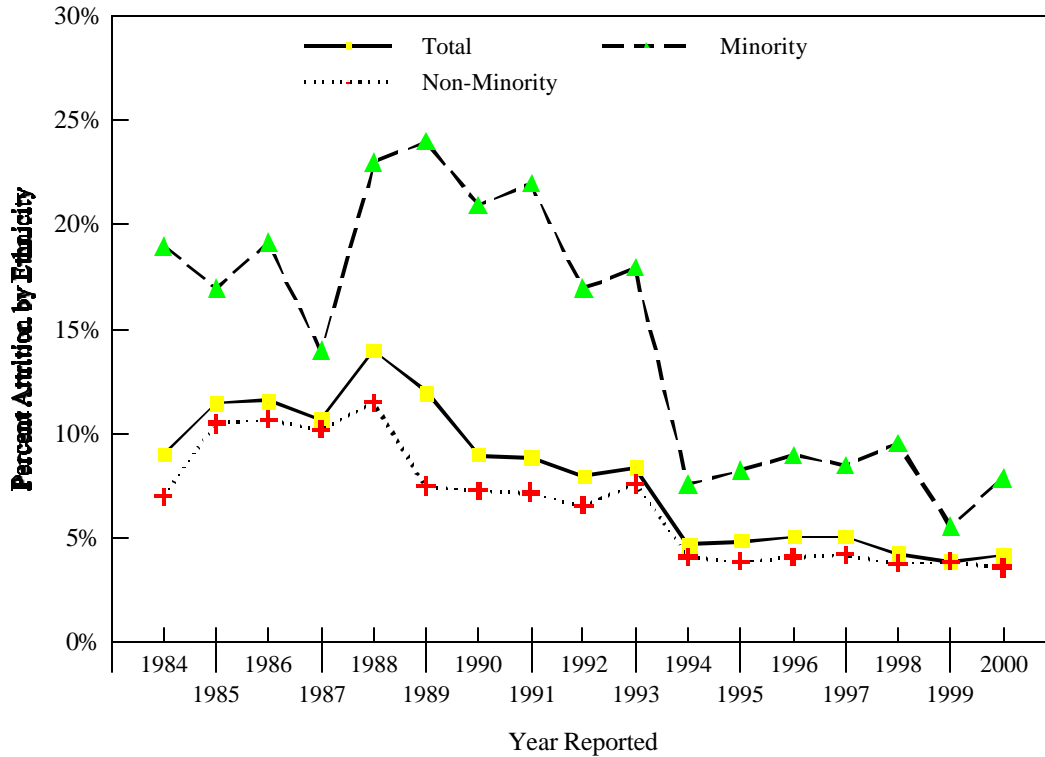


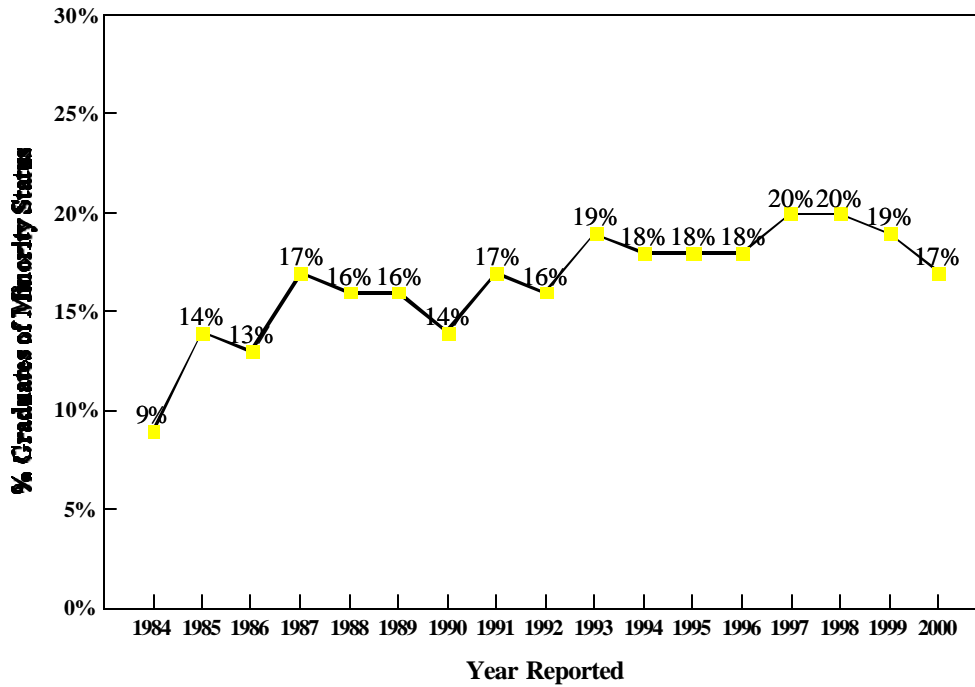
Table 76. 2000 Graduates by Sex, Ethnicity, and Consortia Region

Consortia Region	N	Mean # of Graduates	Gender		Ethnicity				
			Male	Female	White	Black	Hispanic	Asian	Other
Northeastern	19	34.9	35.7%	64.3%	81.2%	5.7%	3.8%	5.9%	3.4%
Eastern	12	36.0	37.0%	63.0%	92.6%	1.6%	0.8%	4.0%	1.0%
Southeastern	12	34.8	38.2%	61.8%	86.9%	5.0%	2.8%	3.3%	2.0%
Midwestern	17	34.5	31.3%	68.7%	89.4%	3.0%	2.2%	2.4%	3.0%
Heartland	7	58.3	34.9%	65.1%	82.1%	1.7%	9.3%	3.9%	3.0%
Western	12	34.5	39.0%	61.0%	74.6%	5.0%	12.5%	5.5%	2.4%
Total	79	38.2	38.0%	62.0%	82.7%	4.2%	5.2%	5.3%	2.7%

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 seventeen years. During the seventeen-year period for which data was available, the graduation of non-white students averaged 16.7%, ranging from a high of 19.7% in 1998 to a low of 9.0% in 1984. The reader is referred to Figure 18 concerning enrollment of minority students, which over the past eighteen years, has averaged 20% (Table 61).

Figure 24. Trends in Minority P.A. Graduates: 1984 Through 2000



Employment Status of 2000 P.A. Graduates

A summary of the employment status of the recent graduates, as reported by 76 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 2000 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.	28.6	12.4	74.1%
Not as a P.A.	0.4	0.7	1.0%
Unemployed	2.6	5.7	6.7%
Continued with Education	0.3	0.7	0.8%
Unknown	<u>6.7</u>	<u>9.4</u>	<u>17.4%</u>
Total (N=76)	38.6	25.7	100.0%

The majority (74.1%) of recent graduates were employed as a physician assistant, a 1.2% increase from 1999 graduates (73.2%). Less than one-fourth of the graduates were either unemployed or their employment status was unknown.

Number of Recent Graduates by State

The number of 2000 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 2,899 students from 77 programs completed their training in 2000. However, if we consider all programs that graduated P.A.'s in 2000 (i.e., 115 programs) we estimate that the total number of graduates would be approximately 4,393 (115 x 38.2).

Table 78. Number of 2000 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	LA	1	34	OK	1	41
AZ	2	90	MA	2	52	OR	1	18
CA	4	237	MD	1	32	PA	10	364
CO	1	26	MI	4	77	SC	1	36
CT	2	76	MO	1	29	SD	1	19
DC	1	51	NC	4	129	TN	1	32
FL	1	59	ND	1	80	TX	5	327
GA	1	51	NE	1	40	UT	1	31
IA	1	26	NJ	2	30	WA	1	72
ID	1	22	NM	1	9	WI	<u>1</u>	<u>30</u>
IL	3	151	NY	12	457			
IN	1	29	OH	4	87			
Total							77	2899

2000 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 Heartland region reported that over 85% of their 2000 graduates had secured employment at the time the program reported. Programs in the Northeastern region had the lowest proportion of graduates employed (67.6%). The overall proportion of recent graduates who were unemployed, including the "Other" category, averaged 25% across the regions.

Table 79. Employment Characteristics of 2000 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	19	23.2	67.6%	2.3	6.7%	8.8	25.7%	34.3
Eastern	10	32.7	75.3%	2.0	4.6%	8.7	20.0%	43.4
Southeastern	12	26.1	76.3%	2.9	8.5%	5.2	15.2%	34.2
Midwestern	17	25.3	77.8%	2.4	7.4%	4.8	14.8%	32.5
Heartland	6	54.4	85.7%	2.6	4.1%	6.5	10.2%	63.5
Western	<u>12</u>	<u>29.4</u>	<u>69.8%</u>	<u>3.8</u>	<u>9.0%</u>	<u>8.9</u>	<u>21.1%</u>	<u>42.1</u>
Total	76	29.0	75.1%	2.6	6.7%	7.0	18.1%	38.6

Trends in Medical Specialty Selection of Recent Graduates, 1985 Through 2000

A comparison of the employment of recent graduates in primary and non-primary care medicine from 1985 through 2000 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 48% in 1989, a decline averaging 3.8% per year. In the past ten years an average of 56% of the graduates have selected primary care medical specialties and the overall sixteen-year mean is 55.8%.

Table 80. Employment of Recent Graduates in Primary and Non-Primary Care Medicine, 1985 Through 2000

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%
<u>2000-2001</u>	<u>1143</u>	<u>53.9%</u>	<u>977</u>	<u>46.1%</u>	<u>2120</u>	<u>100%</u>
16-Yr. Mean	716	55.8%	570	44.2%	1286	100%

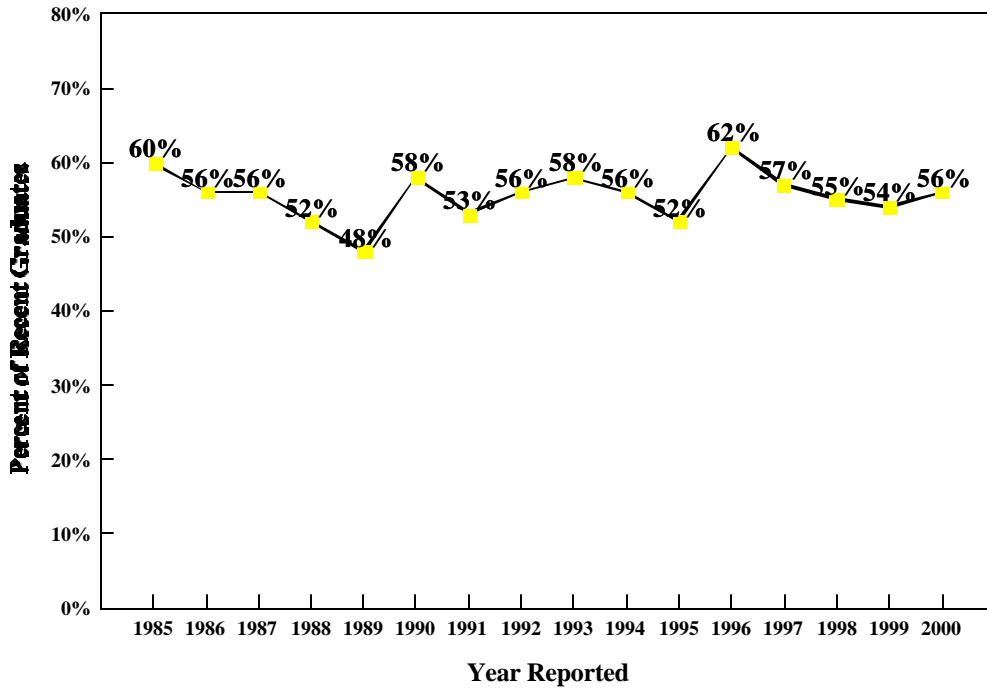
Employment of Recent Graduates in Primary and Non-Primary Care by Consortia Region

The relative proportion of 2000 graduates entering primary and non-primary care medical specialties by region is shown in Table 81. Graduates from programs in the Heartland region had the highest level of employment in primary care medical specialties (82.2%). Graduates from the Northeastern region had the highest level of employment in non-primary care specialties (46.7%).

Table 81. Employment of 2000 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	11.3	53.3%	9.9	46.7%
Eastern	10	10.4	56.2%	8.1	43.8%
Southeastern	12	11.9	57.5%	8.8	42.5%
Midwestern	17	18.2	74.0%	6.4	26.0%
Heartland	6	32.7	82.2%	7.1	17.8%
Western	<u>12</u>	<u>18.8</u>	<u>73.2%</u>	<u>6.9</u>	<u>26.8%</u>
Total	76	18.4	68.1%	8.6	31.9%

Figure 25. Recent Graduate Employment in Primary Care: 1985 Through 2000



The distribution of recent graduates selecting primary care medical specialties from 1991 through 2000 is shown in Table 82. Over the period analyzed, family medicine and general internal medicine remained the primary care specialties of choice. This year, family medicine decreased and general internal medicine increased. The ten-year average was 73% for family medicine and 16% for general internal medicine. The selection of both obstetrics and gynecology and pediatrics also varied over time, ranging from 3.1% to 7.6% and 4.6% to 8.4%, respectively.

Table 82. Trends in the Primary Care Medical Specialty Selection of Recent Graduates, 1991 Through 2000

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Clinical	(47)	(51)	(53)	(48)	(56)	(57)	(68)	(74)	(77)*	(76)*
<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	72.2	71.1	71.0	76.0	75.4	73.1	73.2	75.1	74.9	67.3
Int Med	14.3	16.3	15.1	16.0	15.4	16.9	17.7	16.3	14.8	21.5
Gen Ped	5.9	5.9	8.4	4.6	5.2	6.4	5.3	5.6	6.8	5.5
Ob/Gyn	7.6	6.7	5.5	3.4	3.1	3.6	3.8	3.0	3.4	5.7

* 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 medicine specialties accounted for the majority of positions (40.4%) selected by recent graduates in non-primary care.

Table 83. Trends in the Non-Primary Care Medical Specialty Selection of Recent Graduates, 1991 Through 2000

	<u>1991</u>	<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>
Clinical	(47)	(51)	(53)	(48)	(56)	(57)	(68)	(74)	(77)	(76)
<u>Specialty</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
Surgery	57.7	47.4	36.2	35.5	33.0	34.1	35.1	36.2	31.4	40.4
Med	20.4	22.6	35.4	25.1	29.4	30.6	29.1	28.4	23.3	18.6
Em Med	19.4	25.6	23.1	37.0	33.2	28.7	32.3	33.3	37.7	36.5
Psych.	1.2	1.6	0.9	1.1	0.8	1.0	1.5	0.7	3.3	2.1
Ind Med	1.5	2.8	4.4	1.3	3.6	5.6	2.0	1.4	4.3	2.4

A list of the specific internal medicine subspecialties selected by 2000 graduates is shown in Table 84, along with the number of graduates and programs represented. A total of 434 recent graduates from seventy-six 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=64; 36 programs) and oncology (n=33; 24 programs).

Table 84. Internal Medicine Subspecialties Selected by 2000 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	189	1	Dermatology	12	8
Cardiology	64	36	AIDS/Inf. Diseases	6	5
Oncology	33	24	Other	<u>102</u>	<u>45</u>
Gastroenterology	28	12	Total	434	76

A list of surgical subspecialties selected by the recent graduates is in Table 85. A total of 192 recent graduates from seventy-six P.A. programs selected surgical sub-specialty areas as their first position. Proportionately, these graduates were employed most commonly in cardiovascular/cardiothoracic surgery (n=93; 48%) and neurosurgery (n=37; 19%).

Table 85. Surgical Subspecialties Selected by 2000 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	93	37	Plastic	6	5
Neurosurgery	37	26	Organ Transplant	2	2
Orthopedics	16	10	Other Surg. Spec.	<u>138</u>	<u>24</u>
			Total	192	76

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 2000 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	6.9	43.1%	5.0	31.3%	4.1	25.6%
Eastern	10	9.0	54.5%	4.3	26.1%	3.2	19.4%
Southeastern	12	8.3	52.2%	4.2	26.4%	3.4	21.4%
Midwestern	17	13.6	68.0%	3.5	17.5%	2.9	14.5%
Heartland	6	28.8	78.9%	4.9	13.4%	2.8	7.7%
Western	<u>12</u>	<u>13.5</u>	<u>75.8%</u>	<u>3.1</u>	<u>17.4%</u>	<u>1.2</u>	<u>6.7%</u>
Total	76	12.4	62.3%	4.5	22.6%	3.0	15.1%

* Includes the sub-specialties

Note, the "other" category is not included in the table. Graduates from the Heartland region selected family medicine preferentially (78.9%) and those from the Northeastern region had the least percentage entering family medicine (43.1%). Conversely, graduates from programs in the Northeast selected surgery (25.6%) and internal medicine (31.3%) more frequently than did graduates from other regions.

Regional Variation and Trends in New Graduate Starting Salaries

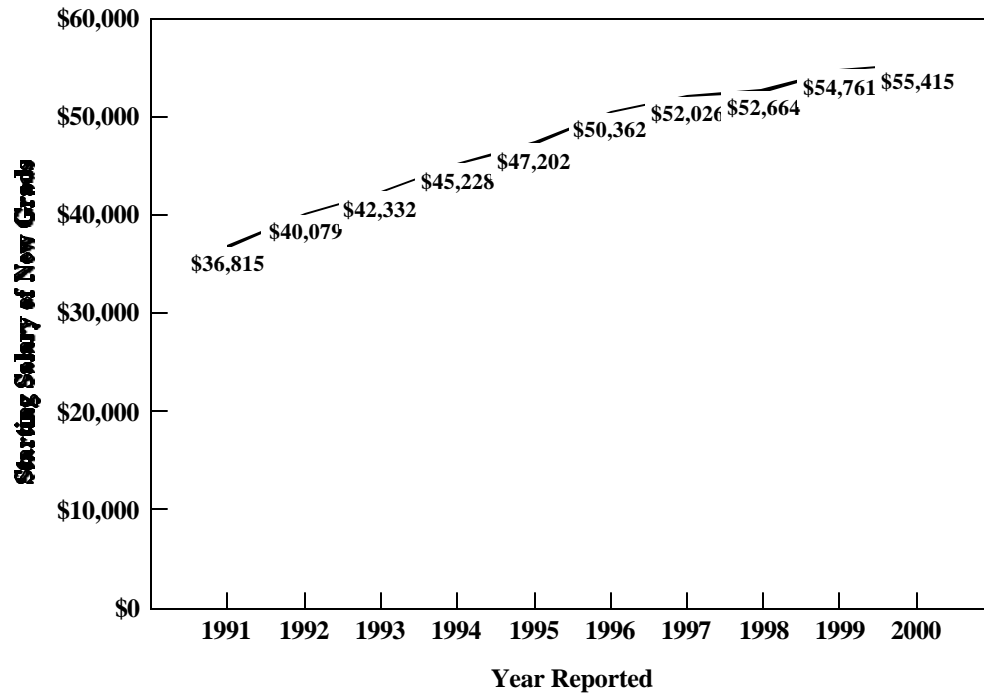
Table 87 shows the estimated starting salary of recent graduates in 2000 by region. The overall average was \$55,415, an increase of 1.2% from the 1999 average of \$54,761. Salaries were above \$54,000 for graduates from programs located in all but the Eastern region. The median starting salary was highest for those graduates from programs located in the Midwest.

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 1999</u>
Northeastern	18	\$54,778	\$55,000	- 1.9%
Eastern	7	\$53,240	\$52,000	+ 4.4%
Southeastern	11	\$56,903	\$56,000	- 0.7%
Midwestern	17	\$56,811	\$57,000	+ 1.4%
Heartland	6	\$54,800	\$53,500	+ 4.6%
Western	<u>10</u>	<u>\$54,444</u>	<u>\$55,000</u>	<u>+ 3.9%</u>
Total	69	\$55,415	\$55,000	+ 1.2%

Salaries of graduates from programs located in the Heartland region marked the greatest increase from 1999 (4.6%), while programs in the Northeastern region reported a decrease of 1.9% from 1999. These data are also shown in Figure 26 (next page). Thus, starting salaries have increased each year by an average of 4.7% and there has been an overall increase in salaries of 50.5% since 1991.

Figure 26. Trends in Starting Salary for New Graduates: 1989 Through 2000



SECTION V. P.A. PROGRAMS AND TITLE VII FUNDING

In 1999, the authors of this Report were approached by the Division of Medicine and Dentistry and the Bureau of Health Professions to discuss the collection of data relative to Title VII Funding of physician assistant programs. As a result of these discussions and with the approval of the APAP Board of Directors, the Annual Report has been expanded to survey and report on various data elements more specific to the requirements of Title VII Funding. It is anticipated that this will be a continuing effort with results reflected in future Reports.

Disadvantaged Personnel, Students and Graduates

For the purpose of the Report, a disadvantaged person was defined as an individual who (1) comes from an environment that has inhibited the individual from obtaining the knowledge, skill, and abilities required to enroll in and graduate from a health professions school or from a program providing education or training in an allied health profession; or (2) comes from a family with an annual income below a level based on low income thresholds according to family size published by the U.S. Bureau of the Census, adjusted annually for changes in the Consumer Price Index, and adjusted by the Secretary for use in all health professions programs (42 CFR 57.1804(c)). The following are provided as examples, for guidance only and are not intended to be all inclusive: comes from high school with low SAT scores or below the average State test results; comes from a school district where 50% or less of graduates go to college; first generation to attend college who are from rural or urban areas or receiving public assistance.

Forty-three programs reported that they employ a total of 97 disadvantaged personnel (10 Program Directors, 43 Category I, 17 Category II, 3 Category III and 24 Category IV).

A summary of the number of programs reporting that disadvantaged students were enrolled for the 2000-2001 academic year by region is shown in Table 88. The table also provides the mean/program for all programs responding, as well as for those enrolling one or more disadvantaged students.

For those programs with disadvantaged students enrolled, the Western region reported 15.6 disadvantaged students/program, while the Eastern and Midwestern regions reported 1.8 disadvantaged student/program. When considering all programs that responded, the Western region averaged 6.0/disadvantaged students/program. The Eastern and Midwestern regions reported 0.6 disadvantaged students/program.

Table 88. Numbers of Disadvantaged Students Enrolled by Consortia Region

<u>Consortia Region</u>	<u>N/N*</u>	<u>Mean/program**</u>	<u>Mean/program***</u>
Northeastern	9/18	3.2	1.6
Eastern	5/14	1.8	0.6
Southeastern	5/16	4.8	1.5
Midwestern	6/19	1.8	0.6
Heartland	4/11	5.0	1.8
Western	<u>5/13</u>	<u>15.6</u>	<u>6.0</u>
Total	34/91	5.0	1.9

* Number of programs reporting disadvantaged students/Number of programs responding

** Mean based upon programs reporting disadvantaged students enrolled

*** Mean based upon all programs responding

Table 89 provides the percent of disadvantaged students in comparison to the total number of students enrolled by region. The Western region enrolls the largest percent of disadvantaged students (11.8%). The Midwestern region enrolls only 1.6% disadvantaged students.

Table 89. Percentage of Disadvantaged Students Enrolled by Consortia Region

<u>Consortia Region</u>	<u>N</u>	<u>Number of Disadvantaged Students</u>	<u>Total # of Students</u>	<u>% of Disadvantaged Students</u>
Northeastern	18	29	784	3.7%
Eastern	14	9	522	1.7%
Southeastern	16	24	624	3.8%
Midwestern	19	11	693	1.6%
Heartland	11	20	551	3.6%
Western	13	78	661	11.8%
Total	91	171	3835	4.5%

Table 90 provides a summary of the number of programs responding to the questions regarding disadvantaged 2000 graduates by region. The table also provides the mean/program and median/program for all programs. The Western region reported 9.64 disadvantaged graduates/program, while programs in the Midwestern region averaged 2.25 disadvantaged graduates/program.

Table 90. Numbers of Disadvantaged 2000 Graduates by Consortia Region

<u>Consortia Region</u>	<u>N*</u>	<u>Mean/program</u>	<u>Median/program</u>
Northeastern	13	3.85	2.0
Eastern	9	3.33	1.0
Southeastern	11	4.09	4.0
Midwestern	12	2.25	0.0
Heartland	5	2.80	3.0
Western	11	9.64	7.0
Total	61	4.46	1.0

* Number of programs

The percent of disadvantaged 2000 graduates in comparison to the total number of graduates by region is shown in Table 91 (next page). The programs in the Western region had the largest percent of disadvantaged graduates (23.2%). While the Heartland region graduated only 3.4% disadvantaged students.

Table 91. Percentage of Disadvantaged 2000 Graduates by Consortia Region

<u>Consortia Region</u>	<u>N</u>	<u>Number of Disadvantaged Grads</u>	<u>Total # of Grads</u>	<u>% of Disadvantaged Grads</u>
Northeastern	13	50	628	8.0%
Eastern	9	30	400	7.5%
Southeastern	11	45	370	12.2%
Midwestern	12	27	545	5.0%
Heartland	5	14	408	3.4%
Western	<u>11</u>	<u>106</u>	<u>456</u>	<u>23.2%</u>
Total	61	272	2807	9.7%

Ethnic Representation of Applicants and Enrollees

The mean number and proportion of P.A. applicants and students enrolled in the first-year class on the basis of both ethnicity and region is in Table 92. A minority student is classified as Black/African-American (non-Hispanic), Hispanic/Latino/Mexican American, Asian Subpopulations (any Asian other than Chinese, Filipino, Japanese, Korean, Asian Indian, or Thai) or Native Hawaiian/Other Pacific Islander.

Table 92. Applicants and Enrollees by Ethnicity and Consortia Region

<u>Consortia Region</u>	<u>Applicants</u>				<u>Enrollees</u>			
	<u>Non-Minority</u>		<u>Minority</u>		<u>Non-Minority</u>		<u>Minority</u>	
	<u>Mean</u>	<u>%</u>	<u>Mean</u>	<u>%</u>	<u>Mean</u>	<u>%</u>	<u>Mean</u>	<u>%</u>
Northeastern	167.8	78.0%	47.3	22.0%	31.1	77.6%	9.0	22.4%
Eastern	152.8	89.1%	18.6	10.9%	34.7	92.8%	2.7	7.2%
Southeastern	192.1	77.4%	56.1	22.6%	33.0	79.7%	8.4	20.3%
Midwestern	149.2	92.5%	12.1	7.5%	31.9	90.9%	3.2	9.1%
Heartland	135.8	88.8%	17.1	11.2%	35.9	78.4%	9.9	21.6%
Western	<u>195.5</u>	<u>80.9%</u>	<u>46.3</u>	<u>19.1%</u>	<u>32.1</u>	<u>68.0%</u>	<u>15.1</u>	<u>32.0%</u>
Total	167.1	83.0%	34.2	17.0%	32.8	81.2%	7.6	18.8%

There was considerable variation in the proportion of minorities applying to, and enrolled in, programs across regions. Programs in the Southeastern region had the largest proportion of minority applicants at 22.6% and the Midwestern region the least number, with only 7.5% being minority. The Western region enrolled the largest percentage (32%) of minority students. Programs in the Eastern region had the fewest number of minority enrollees (7.2%).

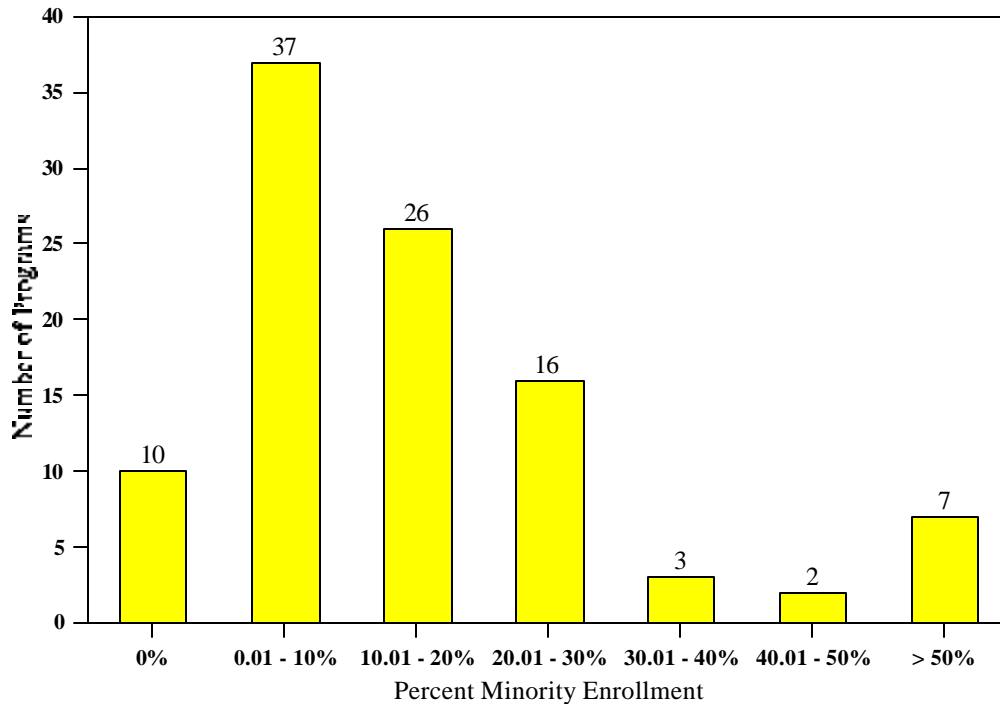
The number and percent of programs reporting no minority students enrolled in the first-year class is shown in Table 93. Ten programs, in each of the six regions, had no minority students enrolled.

Table 93. Number of Programs with No Minority Enrollment by Consortia Region

<u>Consortia Region</u>	<u>N</u>	<u># of Programs</u>	<u>(%)</u>
Northeastern	21	1	4.8%
Eastern	15	3	20.0%
Southeastern	17	1	5.9%
Midwestern	22	3	13.6%
Heartland	12	1	8.3%
Western	<u>14</u>	<u>1</u>	<u>7.1%</u>
Total	101	10	9.9%

Figure 27 represents the number of programs with certain percentages of minority enrollment. There are 39 programs that have a larger percentage of minority enrollment than the mean of 12.4%; 61 programs have less. The average minority enrollment for programs with greater than 20% is 43.0%; for programs with 20% or less minority enrollment, 10.8%.

Figure 27. Number of Programs vs. Percentage of Minority Enrollment



Geographic Distribution of Recent Graduates

Programs were asked to identify the number of clinically practicing 2000 graduates by Rural/Urban Continuum Code. Programs needed to identify the counties in which their graduates were practicing, and then based upon that information utilize the following web site to determine the Rural/Urban Continuum Code: <http://www.ers.usda.gov/briefing/rural/data/codes/RUCC.HTM>. The Rural/Urban Continuum Codes are as follows:

- 00 Central counties of metropolitan areas of 1 million population or more
- 01 Fringe counties of metropolitan areas of 1 million population or more
- 02 Counties in metropolitan areas of 250,000 - 1,000,000 population
- 03 Counties in metropolitan areas of less than 250,000 population
- 04 Urban population of 20,000 or more, adjacent to a metropolitan area
- 05 Urban population of 20,000 or more, not adjacent to a metropolitan area
- 06 Urban population of 2,500 - 19,999, adjacent to a metropolitan area
- 07 Urban population of 2,500 - 19,999, not adjacent to a metropolitan area
- 08 Completely rural (no places with a population of 2,500 or more) adjacent to a metropolitan area
- 09 Completely rural or less than 2,500 urban pop., not adj. to metro area

Table 94 provides the average number of graduates/program practicing in a geographic area by APAP consortia region. Program in the Heartland region had the highest average of graduates practicing in a central county of metropolitan areas of 1 million population or more (15.2 graduates/program); the Eastern region had the least (2.0). Programs in the Heartland region had the highest average of graduates practicing in a county completely rural (no places with a population of 2,500 or more) not adjacent to a metropolitan area (1.0 graduates/program); the Western region had the least (0.0). The Northeastern region had the largest amount of unknown (16.1 graduates/program).

Table 94. Geographic Distribution of Recent Graduates by Consortia Region

Consortia <u>Region</u>	<u>N</u>	<u>00</u>	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>Unk</u>	<u>Total</u>
Northeastern	14	7.3	1.9	2.9	2.7	2.5	0.5	0.5	0.4	0.1	0.4	16.1	35.3
Eastern	8	2.0	0.5	5.6	5.9	2.5	0.3	0.8	0.3	0.4	0.3	15.6	34.0
Southeastern	12	5.1	0.8	9.0	4.1	1.0	1.9	1.6	0.6	0.5	0.7	9.1	34.3
Midwestern	13	6.2	1.8	4.1	2.2	1.2	1.4	0.4	1.1	0.0	0.9	9.4	28.6
Heartland	5	15.2	0.8	4.6	1.0	0.6	2.4	0.6	0.8	0.4	1.0	4.4	31.8
Western	<u>10</u>	<u>7.4</u>	<u>0.8</u>	<u>9.8</u>	<u>6.8</u>	<u>1.3</u>	<u>0.8</u>	<u>0.7</u>	<u>0.4</u>	<u>0.9</u>	<u>0.0</u>	<u>5.9</u>	<u>34.8</u>
Total	62	6.6	1.4	5.8	3.8	1.6	1.1	0.7	0.6	0.3	0.5	11.0	33.6

Degree of Completion for Recent Graduates

As reported by 74 programs, Table 95 (next page) lists the degree of completion for recent graduates by region. Forty percent of the 2000 graduates earned a bachelors degree at the completion of their studies, 35% earned a masters degree, 21.2% obtained a certificate and less than 4% earned an associate degree. The programs in the Western region reported the largest percentage of Certificates (70.6%), while programs in the Southeastern region reported 59% of the recent graduates received a masters degree upon completion. Almost three-fourths of the graduates in the Heartland region earned a bachelors degree. Only 13% of the graduates in the Western region earned a masters degree.

Table 95. Degree of Completion for Recent Graduates by Consortia Region

Consortia Region	N	Certificate		Associate		Bachelors		Masters	
		N	%	N	%	N	%	N	%
Northeastern	18	118	18.8%	38	6.1%	303	48.2%	169	26.9%
Eastern	11	46	11.5%	0	0.0%	188	47.0%	166	41.5%
Southeastern	11	0	0.0%	0	0.0%	152	41.1%	218	58.9%
Midwestern	16	110	20.2%	71	13.0%	107	19.6%	257	47.2%
Heartland	7	0	0.0%	0	0.0%	300	73.5%	108	26.5%
Western	11	322	70.6%	0	0.0%	75	16.4%	59	12.9%
Total	74	596	21.2%	109	3.9%	1125	40.1%	977	34.8%

Underserved Setting of Clinically Active Recent Graduates

Programs were asked to identify the number of recent graduates that are practicing in a Medically Underserved Community (defined as follows) or Medically Underserved Area (based on four variables: the primary care physician-to-population ratio; the infant mortality rate, the percentage of the population 65 years of age and older, and the percentage of the population with an income below the poverty level).

Medically Underserved Community (MUC):

- Community Health Centers (CHC)
- Migrant Health Centers (MHC)
- Health Care for the Homeless Grantees (Home)
- Public Housing Primary Care Grantees (PH)
- Rural Health Clinics, federally designated (RHC)
- National Health Service Corps Sites (NHS)
- Indian Health Service Sites (IHS)
- Federally Qualified Health Centers (FQH)
- Primary Medical Care Health Professional Shortage Areas (HPSA)
- State or Local Health Departments (State)
- Sites Designated by State Governors (Gov)

Table 96 lists the number of graduates by region reported to be working in one of the medically underserved communities, or in a medically underserved area (MUA). Over one hundred 2000 graduates are working in health professional shortage areas. The least amount of graduates is working in health care for the homeless grantees and public housing primary care grantees.

Table 96. Underserved Setting of Clinically Active Recent Graduates by Consortia Region

Consortia Region	N	CHC	MHC	Home	PH	RHC	NHS	IHS	FQH	HPSA	State	Gov	MUA
Northeastern	15	14	0	0	0	1	4	0	17	11	3	11	15
Eastern	7	9	1	1	0	2	1	0	0	12	1	0	12
Southeastern	11	1	3	1	2	4	5	0	1	40	2	0	51
Midwestern	15	7	0	0	0	17	5	2	1	57	3	0	25
Heartland	5	0	0	1	0	3	1	3	0	0	0	0	13
Western	11	52	2	0	0	9	0	2	11	17	4	16	29
Total	64	83	6	3	2	36	16	7	30	137	13	27	145

Table 97 provides a summary of those graduates practicing in a MUC/MUA in comparison to those who are not, by region. Programs located in the Western region have the highest percentage of graduate practicing in a MUC/MUA (39%), while programs located in the Heartland have the lowest percentage of graduates practicing in a MUC/MUA (12.6%). Programs in the Eastern region have the highest percentage of graduates not working in a MUC/MUA (55.2%). Programs located in the Heartland report the highest unknown values.

Table 97. Recent Graduates Practicing in Underserved Settings by Consortia Region

Consortia Region	N	<u>MUC/MUA</u>		<u>Not in MUC/MUA</u>		<u>Unknown</u>	
		N	%	N	%	N	%
Northeastern	15	76	14.1%	160	29.7%	302	56.1%
Eastern	7	39	15.5%	139	55.2%	74	29.4%
Southeastern	11	110	36.2%	112	36.8%	82	27.0%
Midwestern	15	117	28.7%	171	42.0%	119	29.2%
Heartland	5	21	12.6%	58	34.7%	88	52.7%
Western	<u>11</u>	<u>142</u>	<u>39.1%</u>	<u>148</u>	<u>40.8%</u>	<u>73</u>	<u>20.1%</u>
Total	64	505	24.9%	788	38.8%	738	36.3%

NCCPA Board Pass Rates

The average and median NCCPA Board Pass Rate by region is shown in Table 98. Seventy programs reported an average board pass rate of 93.7%, slightly higher than the 93% Fall pass rate for 2000 as reported by the National Commission on the Certification of Physician Assistants. Programs in the Western region report the lowest average pass rate (89.9%), while programs in the Heartland region report a (99.0%) pass rate.

Table 98. NCCPA Board Pass Rates by Consortia Region

Consortia Region	N	Mean	Median
Northeastern	15	96.6%	96.0%
Eastern	11	96.2%	97.0%
Southeastern	11	91.7%	93.0%
Midwestern	16	91.2%	96.0%
Heartland	6	99.0%	100.0%
Western	<u>11</u>	<u>89.9%</u>	<u>90.0%</u>
Total	70	93.7%	94.0%

SUMMARY AND CONCLUSIONS

This report presents an update of physician assistant educational programs in the United States for the 2000-2001 academic year. This is the seventeenth annual report to be published since 1984 and is based upon data drawn from the 2000 national survey of P.A. programs and includes APAP member programs and those enrolling students for the first time in 2000. Two surveys were administered. Survey #1 was mailed in October to 126 programs. The response rate for survey #1 was 83.3% (105 programs). The second survey was mailed in November, with a return of seventy-four 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 fifteen 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=114; 90.5%) were associated with either a University or 4-year College and equal numbers (N=54; 42.8%) awarded graduates a baccalaureate degree or a master's degree; the remainder awarded either an associate degree or only a certificate of completion. The majority (N=75; 59.5%) of the current P.A. Programs were established since 1989; thirty-five 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 25.5 months in length and ranged from 12 to 36 months. The majority of programs graduated their seniors over two periods, between May-June (N=37) and August-September (N=62).

P.A. programs received the majority of their financial support from the sponsoring institution, averaging \$487,739 (56% of the budget) and federal training grants, averaging \$123,055 (14% of the budget). Thirty-one programs (31%) reported they received federal training grant support in 2000-2001. The average cost per program to educate a P.A. student was estimated to be \$11,064/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 (\$1,215,996 per program). Programs located in the Northeastern region had the highest level of federal training grant support (\$188,500 per program). Programs in the Heartland region had the lowest total budget, averaging \$609,000 per program. Programs in the Heartland region had the lowest level of federal training grant support (\$67,500).

The typical resident student paid an average of \$32,684 for tuition, books, fees, and equipment for their entire professional education in a P.A. program, the non-resident student paid \$39,298. Eighty-six percent of the students received financial aid averaging \$16,930 per student per year. Students enrolled in programs located in the Eastern region had the highest resident tuition (\$39,397/student/curriculum), while programs in the Heartland region had the lowest resident tuition (\$12,035/student/curriculum).

Eighty-eight percent of the students in programs located in the Southeastern region received financial aid, while 83% of the students in the Midwestern region received financial aid. For all students enrolled in 2000, only 26 (1st year students) and 51 (2nd year students) were awarded support from any of the several types of Public Health Service Corps Scholarships.

Trends from 1984 Through 2000

Total program budget increased an average of 7.7% annually from 1984 through 2000, a total increase of 215% over the past seventeen 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 (17 year mean=\$137,951) and accounted for an average of 28% 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 280% while the proportion of students receiving financial assistance has increased to 86%. Since 1986, the amount of financial aid provided to students has increased by almost 338%, from \$3,866/student/year to \$16,930/student/year in 2000.

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 (0.29) and one program director (0.965) and, on average, 3.7 P.A. credentialed and 0.9 non-P.A. faculty, and 2.4 Category IV personnel. Thus, the "core" personnel for the typical program amounted to approximately 8.26 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 1999-2000, salaries for P.A. program personnel increased by 5.1% and 3.8% for non-P.A.'s. Ninety-three percent of the P.A. and 62% of the non-P.A. personnel were classified as faculty. Twenty-eight percent were on a tenure track and 24.5% of the tenure track faculty were tenured. Forty-five percent of the Category I - III program personnel had earned a masters degree and 11% held a doctorate as their highest degree.

On average, 51% of the P.A. credentialed staff and faculty (including program directors) provided 13 hours per week of clinical practice in addition to their educational activities. Ninety-one percent were paid for their clinical service which averaged \$38.28 per hour. Clinical earnings accounted for 35.5% of their salary.

In comparison to the 1999 data, the proportion of program directors who were credentialed as P.A.'s increased from 79.5% to 83%, salaries increased by 4.1% and months in position increased from 70 to 76 months. The majority of program (87%) and medical (84%) directors were classified as faculty and were on a tenure track. Less than one-fifth were tenured. While all but one of the medical directors held M.D., D.O., or Ph.D. degrees, thirty-seven percent of the program directors had doctoral-level degrees (typically the Ph.D. or Ed.D.). Since 1984, there has been a 113% increase in mean salary for program directors and 70% increase for medical directors. The time in position for both medical and program directors has fluctuated extensively over the seventeen year period.

Respondents also provided data on personnel turnover over the past year. For the period September 1999 through August 2000, turnover averaged 1.1 individual per program. Turnover across all programs was highest among Category I personnel (39/year) and lowest among Category III personnel. Three program director positions were filled during this period. Departing personnel had been in their positions an average of 42 months, those filling the position were in their previous position 26.5 months and were typically two years older than their predecessors.

Vacated positions were filled within 8.4 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, geographic relocation, career advancement and return to clinical practice. In this past year, the salary of those filling the vacated position was 1.3% less than the salary of the person leaving the position.

SECTION III. P.A. Applicant and Student Characteristics

In 2000, the average size of the entering P.A. class was 39.6 students, 65% of whom were women. The senior class averaged 41.3 students per program with 7.5% of the maximum capacity of the class unfilled (due largely to attrition from the program). The typical program received 200 applications and reported a ratio of 5.0 applicants to students enrolled. Using the mean values of the responding programs, the total enrollment (all classes) across all 102 programs was estimated to be 8,132 (144 more students than the previous year). Similarly, the estimated first-year enrollment was 3,896 students with only 1.3% enrolled as part-time students. Programs located in the Southeastern region had the largest number of applicants (248/program). The Heartland region had the largest number of students enrolled (45.8/program). Programs in the Eastern region had the smallest number of applicants (162.6/program). Programs in the Midwestern region had the fewest number of students enrolled (35.0/program).

The typical entering student was described as a white/non-Hispanic female, 28 years of age, with a grade point average of 3.37 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 24.9% in the current year, with the majority of these students in the Latino/Hispanic/Mexican-American ethnic group. All but three programs reported that at least one minority student was enrolled in the 2000 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 52.4% since 1995 (420/program to 200/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 2000. The total number of UMG applicants increased from 170 (2.2/program) in 1999 to 256 (3.6/program) in 2000. UMG enrollment has increased from 65 (0.7/program) in 1999 to 140 (1.49/program) in 2000. On average, 49% of the UMG applicants were admitted in 2000.

Almost one-half (48.1%; 38/79) of the programs received an UMG application while 36.1% (34/94) of the programs enrolled an UMG in 2000. In a broader perspective and with respect to the total applicant pool, UMG's accounted for only 1.8% of the total number of applicants and 3.9% of all students enrolled in the 2000 class.

Programs located in the Western region accounted for the majority of UMG applicants, averaging 5.6/program, while programs in the Heartland region only received an average of 0.8/program. Programs in the Western region enrolled the highest proportion (4.0/program) of UMG's, while programs in the Heartland region enrolled

SECTION IV. Graduate Information

The average size of the 2000 graduating class was 38.2/program and was highest for programs located in the Heartland region (58.3/program) and lowest in the Midwestern region (34.5/program). The majority of recent graduates were female (62%) and non-minority (83%). The attrition rates across programs averaged 4.2% (1.7 students per program) and the reasons for withdrawal were most frequently due to academic (55%) and/or personal (26.5%) problems. The attrition rate reported in 2000 was higher than the previous year (3.9%) and lower than the seventeen average of 7.8%. Attrition was highest among minorities and younger students. Students from programs in the Eastern region had the highest attrition rate (6.7%) and those from programs in the Western region the lowest attrition (1.8%).

On average, 1.0 student per program was decelerated for a deceleration rate of 2.4%. 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 (4.0%) and lowest for programs in the Southeastern region (0.3%).

The proportion of 2000 graduates employed in primary care specialties increased slightly from the previous year (53.9% versus 53.7% in 1999) 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 \$55,415, 1.2% above that reported for the 1999 academic year (\$54,769). Programs in the Heartland region had the highest percent of employment (85.7%) while programs in the Northeastern region had the lowest percent of employment of recent graduates.

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