PAEA

By the Numbers

PROGRAM REPORT

31

Acknowledgements

Recommended Citation

By the Numbers

PROGRAM REPORT 31

BASED ON DATA COLLECTED FROM THE 2014-2015 PAEA PROGRAM SURVEY.

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INTRODUCTION

Physician Assistant Education Association

Founded in 1972, the Physician Assistant Education Association (PAEA) is the only national organization representing PA educational programs in the United States. At the time of the 2015 program survey administration in June 2015, PAEA represented 194 member programs. As of October 2015, there were 199 accredited PA programs, all of which were members of PAEA. For more information about PAEA and our products and services, visit **PAEAonline.org.**

METHODS

The Survey Instrument

The survey consisted of eight sections:

1. **General Information:** Includes geographic location of programs, credentials awarded, year first class enrolled, program length, and program start and end months.

2. **Financial Information:** Includes program budget sources, expense areas, tuition and fees, incidental costs for students, and financial aid information.

3. **Program Personnel:** Includes faculty teaching load, core faculty and support staff full-time equivalent (FTE), and barriers to hiring new faculty.

4. **Enrolled Students:** Includes demographic and academic information about enrolled students.

5. **2015 Cohort:** Includes information on student graduation, withdrawal and deceleration, and characteristics of recent graduates.

6. **Support to Advance Research (STAR):** The Support to Advance Research (STAR) Program is an initiative developed by the PAEA Research Council and research staff that allows faculty of PAEA member programs to submit questions to include in the program survey to obtain data for their own research. The data were provided to the principal investigator of the project and will appear in another publication.

7. **Historical Membership Information:** Includes information intended to build a database of historical information on member programs.

8. **Community and Volunteer Service:** Includes information on community and volunteer service opportunities and requirements for students.

The data in all sections of the survey reflect the 2014–2015 academic year, except those relating to financial information. The financial information is based on the 2014–2015 fiscal year, as defined by each program.

Unless otherwise indicated, the survey covers the professional phase of the program. The "professional phase" is defined as the portion of a PA student's education that is conducted in an educational program accredited by the Accreditation Review Commission on Education for the Physician Assistant (ARC-PA); this is typically about two years in length (one year of classroom and laboratory instruction followed by one year of clinical rotations). Students in "pre-PA programs" or the first two years of 2+2 or similar programs were not considered to be in the professional phase.

Survey Administration and Enhancements

The 2015 program survey was sent to 194 member PA program directors on June 10, 2015. PAEA Research Department staff sent email reminders to nonrespondents via Qualtrics survey software and conducted follow-up calls between July and September 2015. Research staff conducted followup calls until all 194 member PA programs had completed the survey. The survey closed in September 2015. The survey yielded an overall response rate of 100% based on the 194 respondents; however, the response rate is lower for some items.

There were two significant changes in data collection between this year and years prior.

The first difference between this year's survey and the previous years' survey regarded the collection and reporting of student demographic data. A significant number of programs did not report student race and ethnicity data, making it challenging to provide a valid and reliable picture of demographics for students nationwide. For this year, student demographic data collection was simplified. In the past, program directors were asked to report the intersection between students' gender and race, as well as gender and ethnicity; this year program directors were asked to report students' race, gender, and ethnicity separately. While this has increased the validity and reliability of the data, it does not allow for the specific, intersectional reporting of student demographics that prior year reports featured. For instance, whereas the *By The Numbers: Program*

Report 30 reported the number of first-year, Asian males, this year that level of specificity is not possible. Instead, first-year male students and first-year Asian students are reported separately. This is a temporary method of collecting this data and the research team is seeking alternative methods of gathering student demographics that will maintain the specificity of earlier collection methods as well as achieve optimal validity and reliability. Finally, student data was collected by cohort for the third year in a row. By continuing to collect all student data by cohort, total enrollment, deceleration, and withdrawal data will be more accurate and easier to track. This also will enable more accurate projections of future enrollment and graduation rates.

The second significant change concerns the reporting of student tuition. In order to better parse out resident versus nonresident tuition, programs were asked to identify if they had separate resident and nonresident tuition rates. This was done to correct the misreporting of "resident tuition rate" in prior years. In the past several years, private programs reported their standard rates in both the "resident" and "nonresident" categories, artificially inflating the reported resident tuition rate.

PAEA has been tracking program survey data since 1985 and includes these historical data in many of the figures displayed in *By the Numbers: Program Report 31*. To make these figures easier to read, only historical data back to 1995 will be included in the future. PAEA anticipates these changes to be beneficial and looks forward to members' feedback.

Data Cleaning and Analysis

Responses to multiple-choice questions were checked for logical consistency and examined for extreme values and possible errors. In cases of obvious misinterpretations or inconsistencies in the responses to specific items, respondents were contacted for clarification. Responses that fell outside of reasonable parameters were not included in the analyses. The number of responses to individual survey items varied slightly. The tables and figures presented in this report display aggregate data from the respondents. All data are reported for PAEA member programs only.

Program personnel and student data included in this report are provided by the PA program and may vary in response rate and accuracy; thus, yearly fluctuations in the data do occur. If substantial changes in any data occur in a particular year, PAEA recommends waiting for the following year's report before taking any permanent actions in your programs, in order to identify if the change was unique to that year (i.e., due to response rate or random fluctuation).

In general, analyses of the data consisted of producing descriptive statistics on the variables of interest – percentage, arithmetic mean (*M*), median (*Mdn*), standard deviation (*SD*), range, and percentiles. Data were not reported when there were fewer than five values in a category for sensitive data fields (e.g., gender, ethnicity, and race). In some cases, data were not reported and are indicated by "NR." For some tables and figures, percentages will not equal 100% due to rounding or when multiple responses were allowed. Total columns on tables and figures may be designated by *n* (P) for programs, *n* (F) for faculty, *n* (S) for students, or *n* (FTE) for full-time equivalents.

DEFINITIONS

2015 Cohort: The 2015 cohort, or class, is defined as all students who entered into the PA program expecting to graduate on time in 2015, regardless of their eventual graduation status.

Academic health center: As defined by the Association of Academic Health Centers, an academic health center "consists of an allopathic or osteopathic medical school, one or more other health profession schools or programs (such as allied health, dentistry, graduate studies, nursing, pharmacy, public health, veterinary medicine), and one or more owned or affiliated teaching hospitals, health systems, or other organized health care services."

Academic year: As noted in later sections, there is variability in program length as well as the beginning month for each cohort in PA educational programs. Classes matriculate and graduate in nearly every month of the calendar year. For the purpose of this

report, programs were asked to use 2014–2015 as the parameter for determining the academic year. For example, a program that begins in July and is 26 months long would use July 2014 through August 2015.

Core faculty: The program director, medical director, and all additional faculty, regardless of FTE, who are supervised by the program director.

Decelerated students: Students who do not advance to graduation with the same class with which they matriculated.

Fiscal year: Programs were asked to use the prior fiscal year (i.e., 2014–2015) used by their institution. Typically, a fiscal year would be July 1 – June 30, but some institutions use a calendar year (January 1 – December 31) or federal fiscal year (October 1 – September 30).

Health care experience: Includes health care-related experience and direct patient contact experience.

Health care-related experience: Health care experience in which the student's primary responsibilities did not call for direct contact with patients but did involve indirect patient care (e.g., lab technician, front office worker, hospital personnel, research associate).

Hispanic: Hispanic is an abbreviation for "Hispanic, Latino, Latina, or Spanish in origin."

Maximum capacity: Maximum number of students that could potentially be enrolled in the professional phase of a program for each admission cycle that is set by the sponsoring institution and approved by the ARC-PA.

Non-Hispanic: Non-Hispanic is an abbreviation for "non-Hispanic, Latino, Latina, or Spanish in origin."

Patient contact experience: Health care experience in which the student's primary responsibilities called for direct patient contact (e.g., nurse, EMT, corpsman/medic, nurse's aide, medical assistant).

Professional phase: Refers to the portion of a PA student's education that is conducted in an educational program accredited by the ARC-PA. This is typically about two years in length (one year of classroom and laboratory instruction, followed by one year of clinical rotations). Students in "pre-PA programs" or the first two years of 2+2 or similar programs are not considered to be in the professional phase.

US Census Bureau Regions: The 50 states and the District of Columbia are divided into four regions. The US Census Bureau does not consider the Virgin Islands, Puerto Rico, and other US territories in their geographic divisions.

SECTION 1. GENERAL INFORMATION

Characteristics of Sponsoring Institutions

Well over half (65.5%) of programs indicated that their sponsoring institutions were private: 57.8% private, nonprofit and 7.7% private, for-profit. 32.0% of programs were in public institutions. There were one military and four public/private hybrid programs. 35.6% of programs indicated that their sponsoring institution was an academic health center (AHC). 43.3% of programs were located in a college or school of allied health, health professions, or health sciences. 18.9% of programs were located in a department of PA studies or PA program, 14.4% in a school of medicine, 5.2% in a college of graduate and/or professional studies, 3.1% in a college of arts and sciences, and 1.5% were located in a science department.

FIGURE 1. GEOGRAPHIC DISTRIBUTION OF PA PROGRAMS BY US CENSUS BUREAU REGIONS
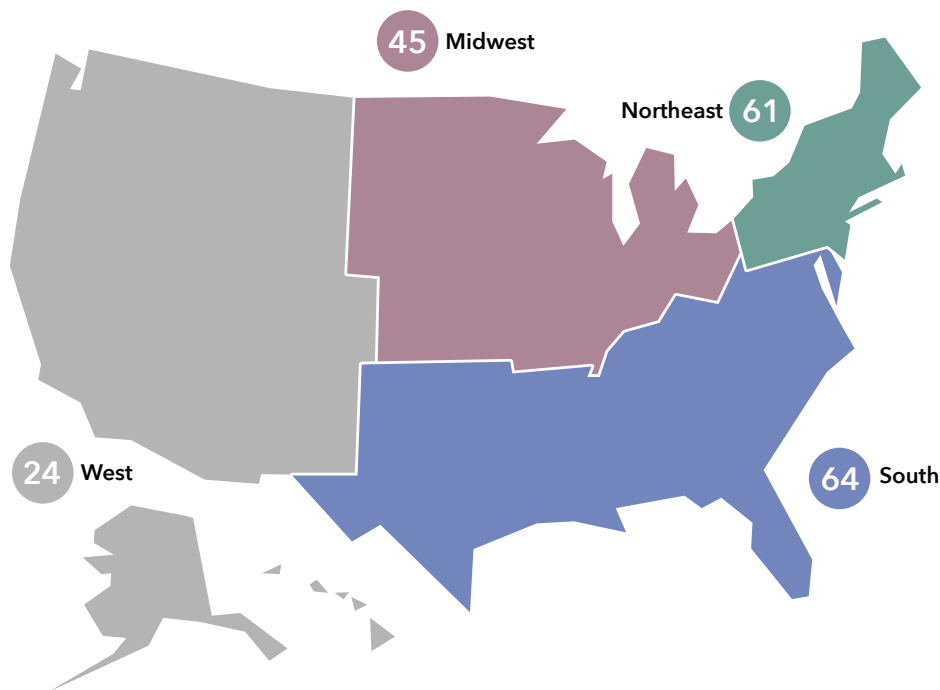
At the time of the 2015 program survey administration in June 2015, PAEA represented 194 member programs. Figure 1 shows the geographic location of PA programs as determined by their US Census Bureau regions.

U.S. Census Bureau Regions

Northeast: *Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont*

Midwest: *Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin*

South: *Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia*

West: *Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming*

Note: The US Census Bureau does not consider the Virgin Islands, Puerto Rico, and other US territories in their geographic divisions.

Twelve programs (6.2%) operated satellite campuses accredited through their sponsoring institutions; however, only one of the programs' satellite campuses had separate admissions processes.

76.3% of programs measured academic terms in semesters, 9.3% in quarters, 8.2% in trimesters, and 6.2% in some other length of time. Among programs that measured their academic terms in semesters, the average total number of credits required for completion was 105.2 (*SD* = 19.9, *Mdn* = 104.0).

FIGURE 2. GROWTH OF MASTER'S DEGREE AS HIGHEST DEGREE AWARDED BY PA PROGRAMS, 1997–2015
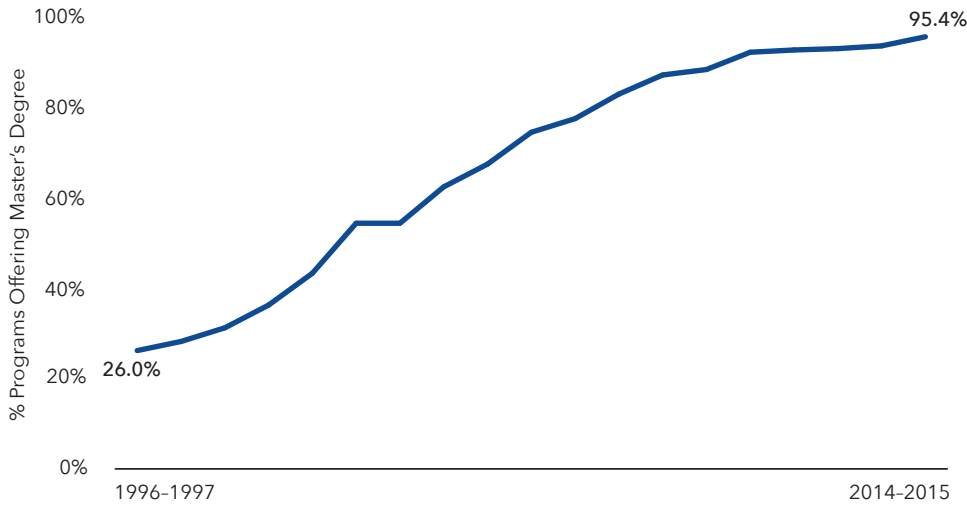
TABLE 1. PRIMARY OR HIGHEST CREDENTIAL AWARDED BY PA PROGRAMS

Credential	%	*n* (P)
Master's Degree	95.9	185
Bachelor's Degree	2.6	5
Certificate of Completion	1.0	2
Associate's Degree	0.5	1
Total	**100.0**	**193**

TABLE 2. CREDENTIALS AWARDED BY PA PROGRAMS

Credential	%	n (P)
Master's Degree		
Master of Science (MS)	16.1	31
Master of PA Studies (MPAS), Master of Science in PA Studies (MSPAS), Master of PA Practice (MPAP), or Master of PA (MPA)	59.6	115
Master of Health Science (MHS) or Master of Science in Health Science (MSHS)	6.2	12
Master of Medical Science (MMS/MMSc) or Master of Science in Medicine (MSM)	12.4	24
Other Master's Degree	1.6	3
Other		
Certificate of Completion	5.7	11
Associate's Degree	3.2	6
Bachelor's Degree/Master's Degree (Accelerated Program)	5.7	11
Master's Degree Plus MPH	3.6	7
Associate's Degree and Master's Degree	0.0	0
Other	2.1	4

Table 2 shows the types of credentials awarded by the 193 responding programs.

Note: Programs could choose more than one answer; therefore, the total may not equal 100%.

FIGURE 3. PA PROGRAMS BY YEAR FIRST CLASS ENROLLED
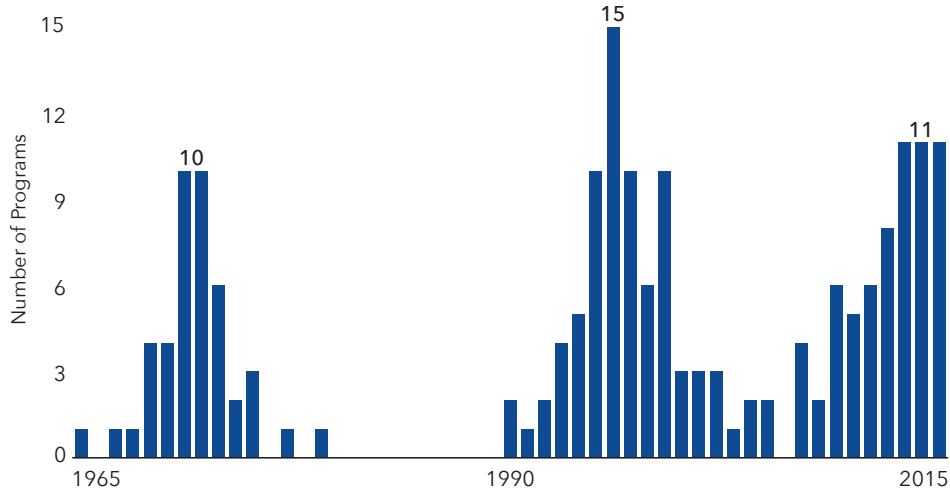
Figure 3 shows the number of programs enrolling their first classes in each academic year since the first PA program enrolled students in 1965. In 2013, PAEA contacted all programs to verify these data to ensure stable data are reported accurately moving forward.

FIGURE 4. CUMULATIVE TOTAL NUMBER OF PA PROGRAMS SINCE 1965

Note: At the time of the survey, six of the 194 programs had not started a cohort.
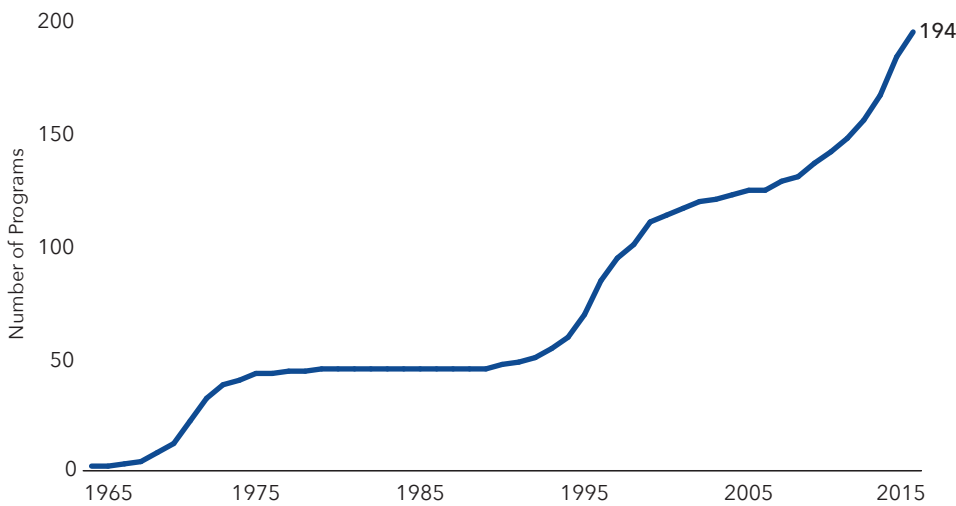
Figure 4 displays the cumulative total number of PA programs since 1965. Both figures display that there were bursts of programs that enrolled their first year classes between 1970–1973 and 1995–2000. It appears that the profession is in the middle of another period of rapid growth, given the upward trend of programs that have enrolled their first year classes since 2009. The ARC-PA projects 77 new PA programs will receive provisional accreditation consideration by 2020.[1]

[1] Accreditation Review Commission on Education for the Physician Assistant, Notes to Programs, Spring 2015.

Program Length

Program length was measured for the professional phase only; thus, calculations do not include the pre-professional phase.

The average length of didactic training was 57.3 weeks (*SD* = 9.6, *Mdn* = 54.0) and the average length of clinical training was 53.7 weeks (*SD* = 7.9, *Mdn* = 52.0). The average length of vacation was 9.4 weeks (*SD* = 5.1, *Mdn* = 8.0).

48.5% of programs offered clinical experiences during didactic training. The average length of these experiences was 13.8 days (*SD* = 12.5, *Mdn* = 10.0, range = 1–63). As more programs are incorporating clinical training into their didactic training, it becomes increasingly challenging to capture the exact length of time for each training phase of education.

FIGURE 5. TOTAL PA PROGRAM LENGTH
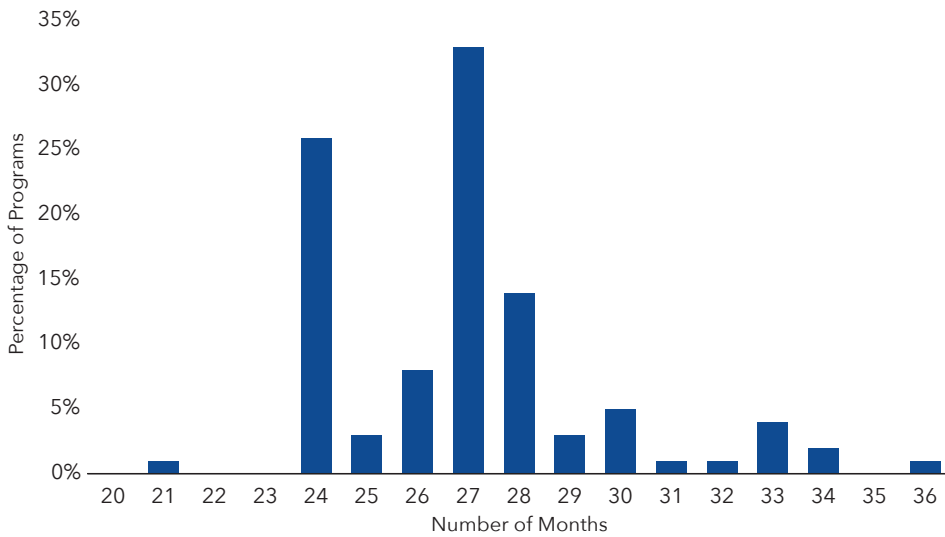
Figure 5 shows that the average program length was 26.3 months (SD = 3.8) among all responding programs (N = 194). 88.2% of programs reported a program length between 24 and 30 months in the 2014–2015 academic year. The shortest program length was 21 months and the longest was 36 months.

FIGURE 6. PA PROGRAM START AND END MONTHS
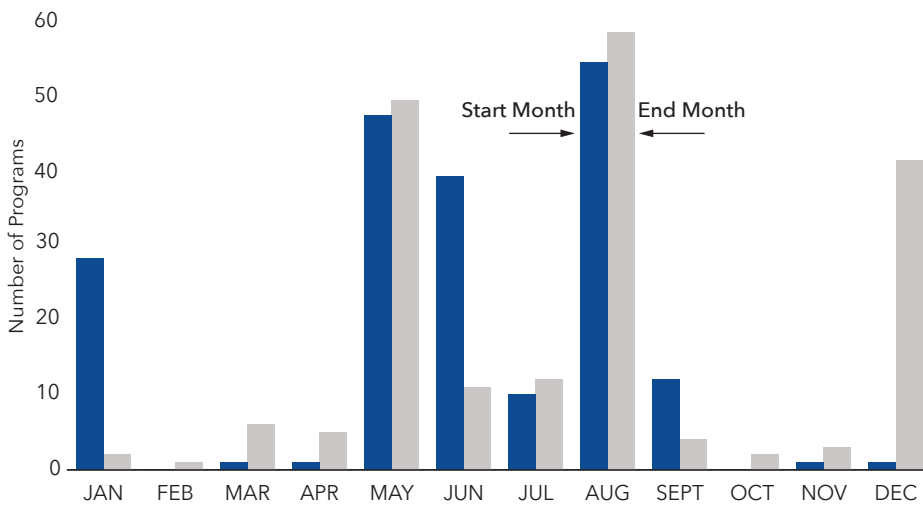
Figure 6 shows that the most common start month for responding programs was August, with 54 programs started that month. 83.5% of responding programs started between May and September. The most common end months for responding programs were May, August, and December.

Pre-Professional Phase

Thirty-two programs (16.5%) had a pre-professional phase. The average length of the pre-professional phase for these programs was 6.0 semesters (SD = 1.5, range = 4–9). Of the programs that had a pre-professional phase, 90.6% admitted students from both the pre-professional track and through direct admission to the professional phase, and 9.4% only admitted students from the pre-professional phase track. On average, programs that admitted students into both the pre-professional track and directly into the professional phase admitted 20.9 students (SD = 17.8, range = 0–75) from the pre-professional track and 29.7 students (SD = 24.4, range = 0–103) from direct admission. On average, programs expected 61.3% of pre-PA students (SD = 29.5%, range = 2%-100%) to enter the professional phase.

TABLE 3. PROGRAM MODELS FOR THE PRE-PROFESSIONAL PHASE

Pre-Professional Phase Model	%	n (P)
3+2	43.8	14
3+3	12.5	4
4+2	6.3	2
2+3	37.5	12
Total	100.0	32

SECTION 2. FINANCIAL INFORMATION

For this section, programs were asked to supply their financial information for the 2014–2015 fiscal year, as defined by the program. Other sections of this report requested information for the 2014–2015 academic year.

Program Budget

One hundred and ninety-four programs reported the start and end months of their fiscal year. The most frequently reported fiscal years include July 1–June 30 (77.3%), June 1–May 31 (9.3%), and September 1–August 31 (6.7%). The following tables about program budget generally do not reflect indirect support (e.g., library services, IT support, and health services) provided by the institution to the PA programs and their students.

For public programs, means and medians did not fluctuate much in comparison to the 2013–2014 reported budgets from sponsoring institutions or total budgets. For private programs, means and medians in the larger programs (51–75 and 76–100 average students per class) appear down from last year. There are several potential explanations for this aside from a true drop in budgets from sponsoring institutions or overall budgets. In 2013–2014, private programs with an average of 51–75 students per class reported an average total budget of $3,290,343 (*SD*=$2,034,440) and a median budget of $2,948,660. In 2014–2015, this same category of PA programs reported a total average budget of $2,877,410 and a median budget of $2,507,115 (*SD*=$1,968,116). However, there were 5 more reporting programs in 2015 in the category of private PA programs with average class size of 51–76, and follow-up with several programs who reported exceptionally large total budgets and budgets from sponsoring institutions in 2013–2014 revealed that the 2013–2014 budget data was artificially inflated by outliers and misreporting.

TABLE 4. SOURCES OF FINANCIAL SUPPORT FOR PA PROGRAMS

Budget Sources	M ($)	SD ($)	P10 ($)	P25 ($)	P50 (*Mdn*) ($)	P75 ($)	P90 ($)	Mean % of Budget	*n* (P)
Overall budget	1,899,411	1,592,436	562,619	987,970	1,402,418	2,348,857	3,739,031	100.0	181
Sponsoring institution	1,296,928	1,096,582	183,900	649,225	1,110,043	1,573,521	2,779,357	59.6	154
Tuition and fees	1,843,817	1,907,065	71,500	187,111	1,139,781	2,815,870	4,613,710	36.3	66
Federal grant/contract	220,402	216,419	26,083	123,102	134,679	214,227	586,589	2.6	39
State grant/contract	167,369	121,004	6,520	51,408	209,500	245,283	265,635	0.8	15
Private foundation	71,197	171,040	3,000	6,000	10,511	46,000	122,867	0.4	17
Other	76,801	192,456	7,184	12,500	24,700	49,575	90,825	0.4	19

Note: Total n (P) responding = 181. Programs that claimed AHEC support and industry donation totaled fewer than five cases and were not reported.

TABLE 5. DIFFERENCES IN PUBLIC AND PRIVATE PROGRAM BUDGETS BY CLASS SIZE

Public	M ($)	Mdn ($)	SD ($)	n (P)
Budget from Sponsoring Institution				
0–25	738,692	800,000	461,570	9
26–50	827,802	861,922	509,230	30
51–75	1,165,354	1,362,755	619,973	9
Total	**871,585**	**861,160**	**526,530**	**49**
Total Budget				
0–25	895,889	899,539	441,754	9
26–50	1,278,299	1,140,267	761,135	36
51–75	1,909,691	1,580,485	1,303,032	9
Total	**1,455,248**	**1,242,775**	**1,276,867**	**57**
Private				
Budget from Sponsoring Institution				
0–25	811,939	784,884	563,136	18
26–50	1,135,980	1,120,000	740,902	45
51–75	2,151,563	1,566,727	1,762,579	27
76–100	2,287,906	1,878,594	864,066	8
Total	**1,497,928**	**1,221,178**	**1,242,894**	**102**
Total Budget				
0–25	1,112,641	1,017,852	649,158	21
26–50	1,614,538	1,272,428	1,056,485	53
51–75	2,877,410	2,507,115	1,968,116	32
76–100	4,211,223	3,450,000	2,500,314	10
Total	**2,114,871**	**1,497,580**	**1,702,875**	**120**

Note: Public institutions with fewer than five cases were not reported for class sizes between 76–100 and 101–125. Private institutions with fewer than five cases were not reported for class sizes between 101 and 125. These programs were included in the overall averages for public and private.

TABLE 6. INSTITUTIONAL BUDGET DIFFERENCES

	M ($)	SD ($)	Mdn ($)	n (P)
Academic Health Center Institutions				
Average budget from sponsoring institution	1,233,566	1,201,786	976,987	57
Average total budget	2,172,903	1,891,302	1,582,146	64
Non-Academic Health Center Institutions				
Average budget from sponsoring institution	1,334,161	1,034,497	1,120,000	97
Average total budget	1,749,808	1,388,671	1,274,493	117

Table 6 shows the budgetary differences between PA programs from academic health centers (AHCs) and non-AHCs. On average, responding PA programs housed in non-AHC institutions had higher average and median budgets from their sponsoring institutions than those housed in AHC institutions. However, total average and median budget were higher for responding PA programs housed in AHC institutions.

TABLE 7. DIFFERENCES IN BUDGET BY ADMINISTRATIVE HOUSING

Administrative Housing	M ($)	SD ($)	Mdn ($)	n (P)
School of Allied Health/Health Professions/ Health Sciences				
Average budget from sponsoring institution	1,214,645	929,221	1,046,102	80
Average total budget	1,666,612	1,362,755	1,788,865	91
Department of PA Studies/PA Program				
Average budget from sponsoring institution	1,366,110	1,117,387	1,112,000	31
Average total budget	1,958,074	1,831,096	1,339,000	36
College/School of Medicine				
Average budget from sponsoring institution	1,410,864	1,716,345	948,812	22
Average total budget	2,579,183	2,291,235	1,815,733	29
College of Graduate and Professional Studies				
Average budget from sponsoring institution	1,253,637	819,702	1,362,655	8
Average total budget	2,016,900	1,234,992	1,570,338	10
College of Arts and Sciences				
Average budget from sponsoring institution	1,589,601	910,933	1,196,098	6
Average total budget	1,711,353	877,827	1,411,902	6
Other				
Average budget from sponsoring institution	1,589,601	910,933	1,196,098	6
Average total budget	1,711,352	877,827	1,411,902	6

Note: Data not reported for departments housed in Science Departments or Other Health Disciplines because each of these categories had fewer than 4 n(P).

Table 7 displays differences in budget by administrative housing. In 2013–2014, PA programs housed in a School of Allied Health/Health Professions had the highest average budget from a sponsoring institution at $1,371,848 (SD=$1,196,440, Mdn=$1,005,694). In 2014–2015, PA programs housed in a College of Graduate and Professional Studies had the highest average budget from a sponsoring institution. PA programs housed in a College/School of Medicine had the highest average total budget in 2014–2015, the same as in 2013–2014.

FIGURE 7. AVERAGE FINANCIAL SUPPORT RECEIVED BY PA PROGRAMS, 1985–2015
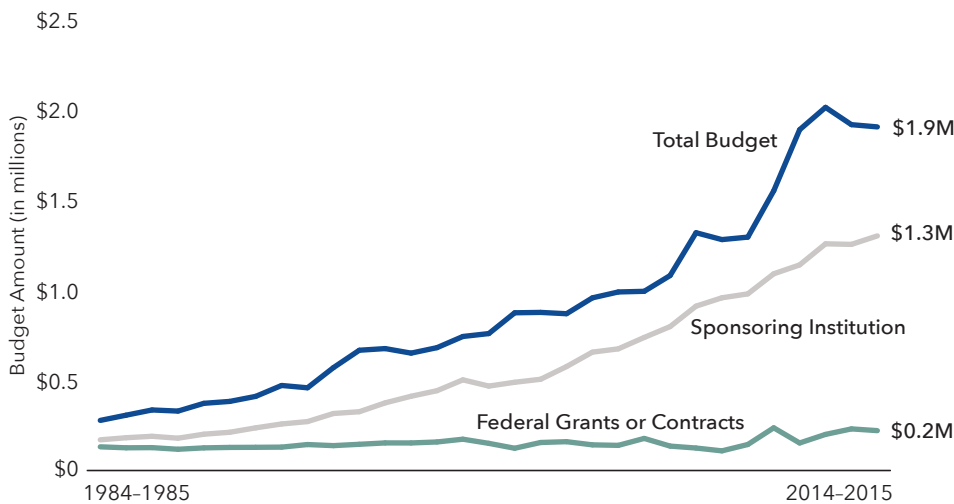
Note: These data were not adjusted for inflation.

Figure 7 shows the trends in total financial support received by responding PA programs, support from the sponsoring institution, and support from federal grants or contracts. The average total budget decreased by 1% from 2013–2014. However, several programs reported parts of their budgets being moved from their program budget into their administrative housing (transferred to labs, for example). The average support from sponsoring institutions increased by 3.7%. The average support from federal grants or contracts decreased by 4.2% from 2013–2014. Eighty-five percent (85.1%) of responding programs reported receiving financial support from their sponsoring institution, and 20.6% reported receiving federal grants or contracts.

Program Expenses

Programs were asked to estimate the percentages of their total expenses accounted for by various items, such as employee salaries, didactic instruction, supervised clinical practice, and office expenses.

TABLE 8. PA PROGRAM EXPENSES

Expense Category	M ($)	SD ($)	Mdn ($)	n (P)	% Reporting
Faculty salaries	782,828	436,161	682,405	177	91.2
Staff salaries	168,928	187,685	121,446	172	88.7
Payment for didactic instruction not included in faculty salaries	65,417	157,337	38,178	140	72.2
Supervised clinical practice (sites and/or preceptors)	179,719	269,812	100,150	52	26.8
Faculty development	21,045	23,972	15,841	174	89.7
Simulation activities	18,222	39,276	7,635	83	42.8
Standardized patients	11,683	16,399	7,000	111	57.2
Laboratory supplies	20,114	28,341	10,000	157	80.9
Office supplies	26,353	45,802	10,450	168	86.6
Student housing and travel to remote clinical sites	42,601	66,325	20,000	43	22.2

Table 8 presents the mean, standard deviation, and median values for various PA program expenses. Percentage totals may not add up to 100%, as only major expenses were included. Missing values and zeroes were not included in mean and median calculations. Additionally, the average institutional fringe rate for faculty salaries was 24.3% (SD = 11.5%, Mdn = 26.5%).

Payment for Clinical Sites

Sixty-three programs paid for clinical sites. Based on 60 programs reporting, the average cost per student per week for clinical sites was $241.7 (*SD* = $244.7, range = $12–$1,100).

The average amount of out-of-pocket expenses the typical student paid for housing at remote clinical training sites for the entire 2014–2015 academic year was $2,267 (*SD* = $3,450, range = $1–$16,800, *n* = 76).

TABLE 9. CLINICAL SITES PAYMENT PRACTICES

Payment to Sites/Preceptors	%	n (P)
No payments to sites or preceptors	67.0	130
Yes, payment only to the clinical site (e.g., clinic hospital)	3.6	7
Yes, payment to all clinical sites and clinical preceptors	4.6	9
Yes, payment to some clinical sites and/or clinical preceptors, but not all	24.2	47
Total	**100.0**	**193**

Table 9 displays the proportion of programs that pay for clinical sites and how the payments are distributed. Further examination is needed to determine what factors lead these programs to pay certain sites and/or preceptors.

Note: Fewer than 5 programs reported "Payment only to the preceptor," so the responses are not included in this table.

Tuition, Student Fees, and Incidental Costs

Programs were asked to provide the estimated current total tuition, student fees, and incidental costs that each student will incur for the entire length of the PA program (professional phase only).

For this report, student tuition was reported differently from years prior. In order to better parse out resident versus nonresident tuition, programs were asked to identify whether they had separate resident and nonresident tuition rates. This was done to correct the misreporting of "resident tuition rate" in prior years. In the past several years, private programs reported their standard rates in both the "resident" and "nonresident" categories, artificially inflating the reported resident tuition rate. The vast majority of private PA programs (108 out of 111 responding private PA programs) did not have separate resident and nonresident tuition rates.

TABLE 10. TUITION, STUDENT FEES, AND INCIDENTAL COSTS FOR PUBLIC AND PRIVATE PA PROGRAMS

Tuition and Fees	M ($)	SD ($)	Mdn ($)	n (P)
Public				
Resident/In-State Tuition	40,918	13,730	39,548	56
Nonresident/Out-of-State Tuition	74,607	20,955	73,202	56
Standard Tuition	74,085	27,708	71,710	5
Total Student Fees	4,839	4,413	3,720	61
Incidental Costs	4,399	3,388	3,305	61
Private				
Resident/In-State Tuition	NR	NR	NR	3
Nonresident/Out-of-State Tuition	NR	NR	NR	3
Standard Tuition	81,555	16,668	80,000	108
Total Student Fees	3,717	3,146	2,891	122
Incidental Costs	4,202	3,385	3,385	124

Note: Private average resident/in-state tuition and average nonresident/out-of-state tuition are not reported here because the n (P) was less than five.

Table 10 contrasts the tution, student fees, and incidental costs between public and private programs. "Incidental costs" refers to the total costs incurred by a student during the entire program, except for tuition, fees, and personal living expenses (e.g., transportation, food, and housing). Incidental costs include textbooks, diagnostic equipment, required technology/software, and other academic expenses. The average total for incidental costs per student for the entire professional phase was $4,243. The average total for incidental costs among responding PA programs from public institutions was slightly higher than private institutions.

TABLE 11. DIFFERENCE IN AVERAGE COST OF STUDYING AT A PA PROGRAM, 2013–2014 AND 2014–2015

	2013–2014 ($)	2013–2014 n (P)	2014–2015 ($)	2014–2015 n (P)	% Change
Public					
Resident Tuition ($)	38,794	58	40,918	56	5.5
Nonresident Tuition ($)	68,311	58	74,607	56	9.2
Incidentals ($)	4,848	49	4,399	61	–9.2
Private					
Standard Tuition ($)	74,475	107	81,555	108	9.5
Incidentals ($)	4,259	105	4,202	124	–1.3

Table 11 contrasts the cost of studying at a PA program between 2013–2014 and 2014–2015. Incidental costs were re-calculated for 2013–2014, with newly cleaned data to eliminate outliers. Incorrect responses had artificially inflated the incidental costs reported in By the Numbers: Program Report 30.

TABLE 12. STUDENT FEES COLLECTED BY THE INSTITUTION/PROGRAM

Student Fees	M ($)	SD ($)	Mdn ($)	n (P)
Laboratory fees	1,559	1,873	750	45
Clinical fees	1,369	1,514	875	24
Computer/IT	1,032	874	750	61
BLS/ACLS	215	114	213	54
Student services	1,364	1,501	1,050	49
Parking	280	413	170	42
Student health services	1,559	1,873	750	45
Drug testing	57	38	40	40
Background check	100	60	84	61
Insurance	250	388	160	29
Other fees	1,057	1,944	400	43

Note: The total n (P) of 102 represents the number of programs that provided a detailed breakdown of student fees.

Table 12 shows a breakdown of student fees. Fifty-five percent (n = 102) of programs were able to report their student fees by type, and the average total of these fees was $3,668 (SD = $3,208, Mdn = $2,668). Forty-five percent (n = 88) of programs could not break down their student fees, and the average total of their student fees were $4,465 (SD = $4,012, Mdn = $3,575).

Scholarships

An average of $53,344 (*n* = 184, *SD* = $162,057) in scholarship funds were awarded by, or passed through, the institution or the program for the class that graduated in 2014, excluding federal loans and scholarships (e.g., National Health Service Corps, Expansion of Physician Assistant Training grants).

SECTION 3. PROGRAM PERSONNEL

Starting in 2014, the employee profile was removed from the *By the Numbers: Program Report* and included in the *By the Numbers: Program Faculty and Directors Report*.

Overall, 191 programs reported 2,126 program faculty, including medical directors. Of those, 1,481 were identified as full-time faculty and 645 were identified as part-time faculty.

TABLE 13. PROGRAM HEAD COUNT FOR TOTAL CORE FACULTY

Core Faculty	*M*	*SD*	P10	P25	P50 (*Mdn*)	P75	P90	*n* (P)	*n* (F)
Didactic	4.0	3.4	0.0	2.0	4.0	5.0	9.5	189	750
Clinical	1.1	1.2	0.0	0.0	1.0	2.0	3.0	186	205
Combined	2.8	3.2	0.0	1.0	1.0	4.0	8.0	191	526

Note: Combined core faculty are faculty with combined didactic and clinical duties.

TABLE 14. PERCENTAGE OF DIDACTIC CURRICULUM TAUGHT BY CORE FACULTY

Delivery Method	*M*	*SD*	P10	P25	P50 (*Mdn*)	P75	P90	*n* (P)
Taught directly by core faculty	67.4	18.6	40.0	55.0	70.0	80.0	90.0	194
Coordinated by core faculty but taught by others	25.7	17.2	5.0	10.0	25.0	38.8	50.0	194
Taught by external personnel with minimal input from core faculty	6.9	11.4	0.0	0.0	0.0	10.0	20.0	193

TABLE 15. CREDIT HOURS TAUGHT PER TERM BY THE AVERAGE FULL-TIME FACULTY MEMBER

Average Credit Hours Per Term	*M*	*SD*	Mdn	*n* (P)
Didactic courses	7.3	7.6	6.0	191
Clinical courses	4.4	6.2	3.0	191
Lab	1.8	4.0	1.0	194
Thesis	0.9	3.6	0.0	194
Other	0.2	1.4	0.0	194

Table 15 displays the average number of credit hours of the average full-time (0.5 FTE or higher) faculty member's load per academic term. 38% of programs reported that they had an annual faculty load requirement for teaching at their program.

TABLE 16. FACULTY AND STAFF FTE BY CAPACITY, FILLED, AND VACANT POSITIONS

Employee	M	SD	n (P)	n (FTE)
Capacity				
Faculty	7.2	3.9	193	1,380
Staff	3.3	2.5	191	638
Program director	1.0	0.1	192	191
Medical director	0.6	0.4	193	111
Filled				
Faculty	6.6	3.8	190	1,258
Staff	3.2	2.5	190	612
Program director	1.0	0.1	189	185
Medical director	0.6	0.4	189	105
Vacant				
Faculty	0.8	1.0	163	126
Staff	0.2	0.8	149	31
Program director	0.6	0.4	189	9
Medical director	0.0	0.1	144	3

TABLE 17. FACULTY AND STAFF HIRED IN 2014–2015

Faculty	M	SD	Mdn	n (P)
New position	0.7	1.0	0.0	143
Replacing position	1.1	1.0	1.0	148
Staff				
New position	0.3	0.6	0.0	146
Replacing position	0.4	0.7	0.0	148

Seventy-six percent of programs hired faculty in the 2014–2015 academic year. **Table 17** shows the breakdown of these hires.

FIGURE 8. BARRIERS PA PROGRAMS FACED IN HIRING NEW FACULTY

Salary (n = 132)

Most Significant Barrier

Lack of Candidates (n = 121)

Lack of Teaching Experience (n = 112)

Location (n = 117)

Moderate Barrier

Degree Requirements (n = 110)

Cost of Living (n = 109)

Lifestyle (n = 108)

Least Significant Barrier

Other (n = 20)

| 0% | 20% | 40% | 60% | 80% | 100% |

Percentage of Programs Reporting Barriers
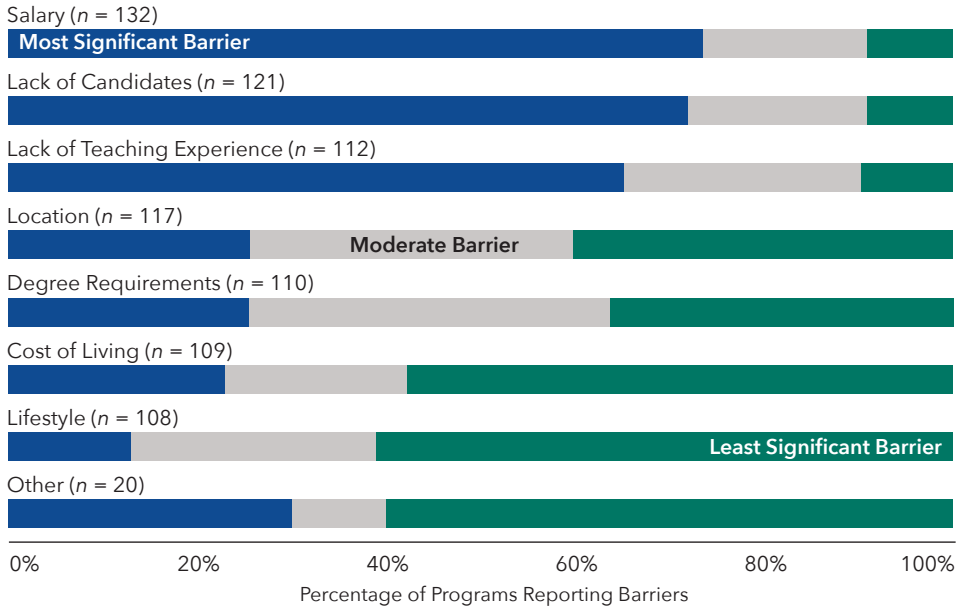
Note: This scale was originally an 8-point scale, with 1 as the most significant barrier and 8 as the least significant barrier. Scale points were collapsed as follows: 1–3 (most significant barrier), 4–5 (moderate barrier), and 6–8 (least significant barrier).

Student-to-Faculty Ratio

For this report, we changed the method for calculating student-to-faculty ratio. Therefore, the student-to-faculty ratio figures between *Program Survey 31* and previous years are not comparable. Prior to this report, the student-to-faculty ratio was calculated by dividing the total number of students, nationally, by the total number of core faculty, nationally. This year, this ratio was calculated by determining each individual program's student-to-faculty ratio, and then averaging all student-to-faculty ratios nationally. From a statistical stand point, this method of calculating the national student-to-faculty ratio better represents differences in program size. When recalculated this way, the student-to-faculty ratio for 2012-2013 was 17.7 and the student-to-faculty ratio for 2013-2014 was 18.6.

This year, the ratio is 15.3 students to 1 core faculty member.

SECTION 4. STUDENTS

Enrollment and Capacity

Twenty-two percent (*n* = 43) of programs were provisionally accredited at the time of the survey administration. Of these, 33% of the programs' inaugural classes were enrolled in the first year, 25.6% enrolled in the second year, and 32.6% had graduated.

FIGURE 9. REASONS FOR UNMET FIRST-YEAR CAPACITY

Students withdrew voluntarily (*n* = 17)

Granted deferred admission to one or more students (*n* = 6)

Not enough qualified applicants to fill seats (*n* = 3)

ARC-PA limitation (*n* = 3)

Clinical constraints (*n* = 3)

Chose not to fill class (*n* = 3)

Insufficient number of students on waiting list (*n* = 2)

Other (*n* = 14)

0%   20%   40%   60%   80%

Percent of Programs with Unmet First-Year Capacity
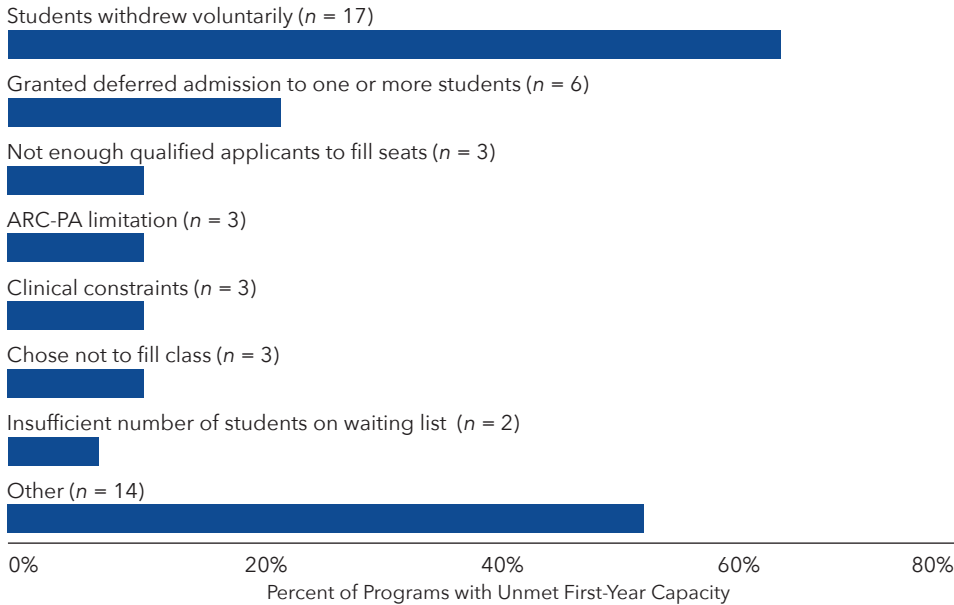
Note: Programs could choose more than one answer; therefore, the total may not equal 100%.

*Eighty-four percent of programs filled their first-year capacity. However, 26 programs reported not filling their first-year capacity. **Figure 9** shows the reasons for these vacancies.*

TABLE 18. PA PROGRAM ENROLLMENT AND CAPACITY

Capacity	M	SD	P10	P25	P50 (*Mdn*)	P75	P90	*n* (P)	*n* (S)
First year	47.0	21.4	25.0	30.0	42.0	56.0	75.4	189	8,877
Second year	47.3	21.2	25.0	32.0	43.0	55.3	75.2	180	8,505
Third year	45.9	16.9	30.0	35.0	42.0	54.0	70.0	107	4,909
Total	**117.9**	**57.3**	**53.2**	**80.0**	**108.0**	**150.0**	**195.0**	**194**	**22,291**
Enrollment									
First year	45.6	20.8	24.9	31.0	40.5	54.0	72.3	190	8,666
Second year	45.2	20.8	24.0	30.0	40.0	54.0	71.4	174	7,869
Third year	42.3	16.0	26.1	30.0	40.0	49.8	63.0	102	4,313
Total	**109.7**	**56.1**	**40**	**72.0**	**102.5**	**139.8**	**181.1**	**190**	**20,848**

Table 18 displays the average enrollment and capacity for PA programs. The average enrollment for all years has risen as compared to last year. Third-year enrollment may vary for programs with a duration of 25–35 months because the survey administration may not coincide with the presence of year-three cohorts.

FIGURE 10. TOTAL PA PROGRAM ENROLLMENT AND CAPACITY, 1985–2015
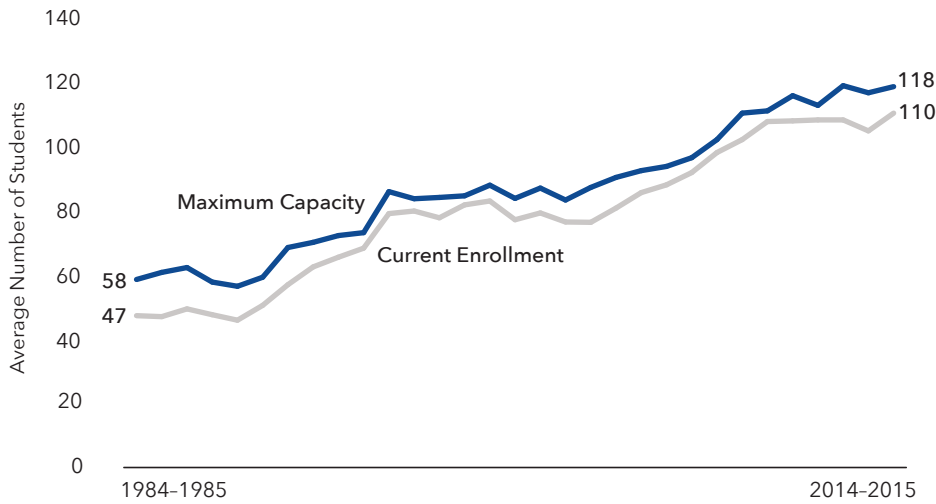
Figure 10 shows that average enrollment and capacity have remained fairly stable over the past four years, with a slight decrease in the 2013–2014 academic year and a slight increase during the 2014–2015 academic year.

FIGURE 11. TOTAL FIRST-YEAR CLASS ENROLLMENT AT PA PROGRAMS, 1985–2015
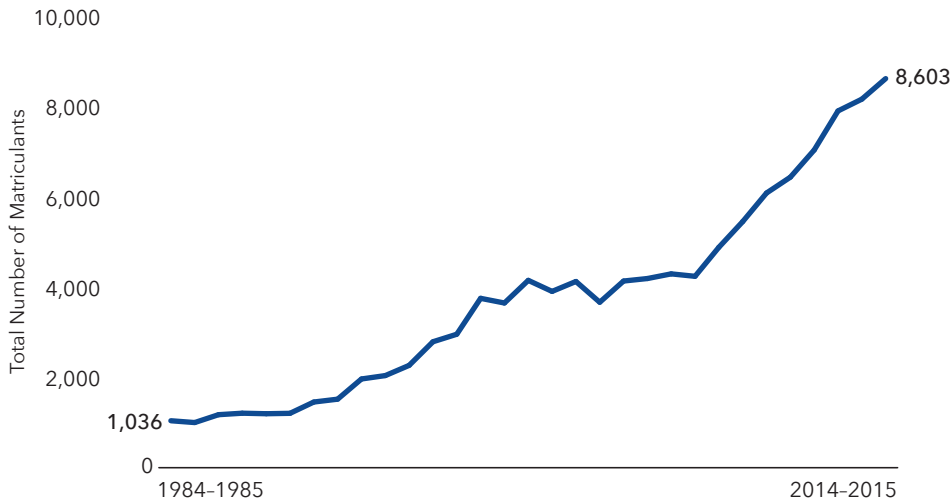
Figure 11 shows that 8,603 new students were reported by the 188 programs that reported having a first-year class. Total enrollment has increased continuously over the past seven years, stimulated by increases in the number of programs and increased capacity of existing programs.

FIGURE 12. AVERAGE FIRST-YEAR CLASS ENROLLMENT AT PA PROGRAMS, 1985–2015

Figure 12 displays the average first-year class enrollment at PA programs since 1985. The average first-year class enrollment has stayed somewhat stable over the last six years.

TABLE 19. FIRST-YEAR CLASS: GENDER

First year	%	n (P)	n (S)
Male	27.6	191	2,455
Female	71.5	192	6,354
Unknown	0.9	8	80
Total	**100.0**	**192**	**8,889**

Note: The total n (S) of 8,889 in this table is higher than the total first year enrollment n (S) reported of 8,603 in Figure 11. This is the result of reporting error. In order to correct this reporting error, alternative methods of gathering student data are being considered, as discussed in the Future Directions section of this report.

TABLE 20. FIRST-YEAR CLASS: ETHNICITY

Ethnicity	%	n (P)	n (S)
Hispanic	7.4	139	589
Non-Hispanic	81.1	157	6,433
Unknown	11.5	38	913
Total	**100.0**	**185**	**7,935**

TABLE 21. FIRST-YEAR CLASS: RACE

Race	%	n (P)	n (S)
American Indian or Alaskan Native	0.8	42	65
Asian	6.8	137	578
Black or African American	3.4	114	295
Multiracial	1.2	42	106
Native Hawaiian or Pacific Islander	0.2	18	17
White	75.5	179	6,457
Other	2.5	68	214
Unknown	9.7	50	826
Total	**100.1**	**179**	**8,558**

Note: The % column does not equal 100% due to rounding of categorical percentages. n (S) is different from other tables due to some programs not reporting first-year class student race.

Table 19 shows PA program enrollment by gender. The distribution of male and female enrollees was nearly identical across all three class years. Greater than 70% of all PA students are female. The gender distribution of first-year students remains stable after a 20-year trend of gradually increasing the proportion of females.

Table 20 reports first year class program enrollment by ethnicity. As noted in the Introduction to this report, the way data on student race, ethnicity, and gender were reported was changed in order to reduce the complexity of reporting. The result is a loss of specificity, and the gender/ethnicity of students is not reportable.

7.4% of students were reported to be Hispanic. This is similar to last years' reported 7.6%. Of note is the high number of students with "Unknown" (11.5%) ethnicity. Unfortunately, a significant number of programs did not report – and do not track – student ethnicity data, which makes it challenging to provide a true picture of the demographics for PA students nationwide.
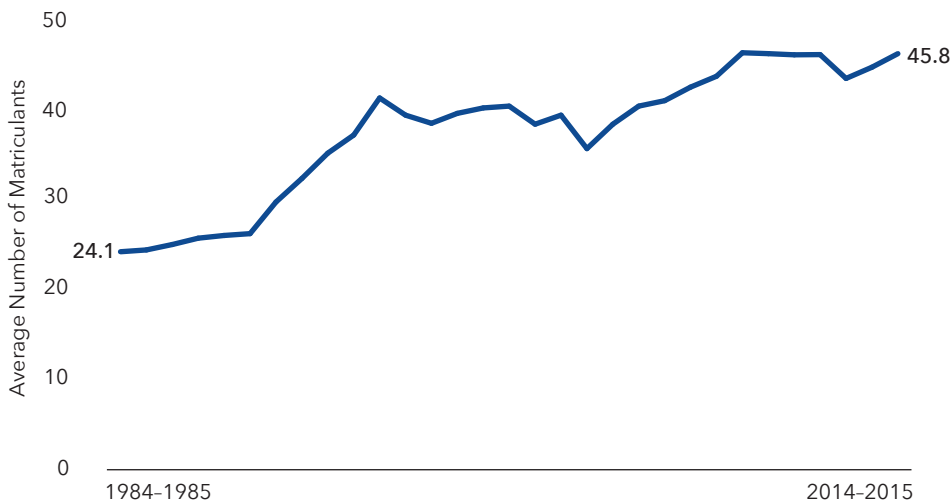
Table 21 displays PA program first-year enrollment by race. Of particular note is the relatively high percentage of students reported as "Unknown" and "Other" race (12.2%). While the racial demographics of the 2014–2015 first-year class are very similar to the racial demographics of the 2013–2014 first-year class, the higher percentage of students identified as "Unknown" and "Other" may have slightly distorted the percentages of the other categories. In particular, the percentage of Black or African American students reported in the 2014–2015 academic year is a percentage point lower than last year, as is the percentage of Asian students. This drop in percentage may only be an artifact of misreporting. A significant number of programs did not report student race data, making it challenging to provide a true picture of the demographics for PA students nationwide.

TABLE 22. FIRST-YEAR CLASS: AGE

Average Age	M	SD	Mdn	n (P)
First-year PA students	25.7	2.4	25.9	183
Youngest first-year PA student	21.8	3.7	21.0	183
Oldest first-year PA student	41.8	8.2	42.0	183

TABLE 23. FIRST-YEAR CLASS: GRADE POINT AVERAGES

GPA Category	M	SD	Mdn	n (P)
Overall undergraduate	3.5	0.1	3.6	182
Undergraduate science	3.5	0.3	3.5	169
CASPA biology, chemistry, physics (BCP)	3.4	0.7	3.5	84
Undergraduate nonscience	3.5	0.7	3.6	102

TABLE 24. REQUIRED EXAMINATIONS FOR ENTRANCE INTO PA PROGRAMS

Test	%	n (P)
ACT	6.2	8
SAT	7.0	9
GRE	67.7	99
MCAT	1.6	2
GRE or MCAT	13.2	17
Other	3.9	5
None	46.5	60
Total	–	**200**

Note: Programs could choose more than one answer; therefore, the total may not equal 100%. Percentages were figured from the total reporting n (P) of 129.

TABLE 25. FIRST-YEAR CLASS: GRE SCORES

GRE Scores	M	SD	Mdn	n (P)
Verbal reasoning	154.3	3.6	154.0	78
Quantitative reasoning	154.1	4.5	153.0	78
Analytical writing	4.1	0.2	4.0	76

TABLE 26. HEALTH CARE EXPERIENCE HOURS OF MATRICULATING STUDENTS

Health Care Experience	M	SD	Mdn	n (P)
Patient contact experience	3,138.5	3,300.6	2,375.5	104
Other health care experience	1,447.7	3,229.1	838.0	37
Other work experience	3,272.3	2,157.2	2,297.0	26
Community service	869.0	2,245.2	322.0	39
Shadowing	160.4	200.1	103.5	55
Total	4,837.3	5,502.4	3,283.0	105

Table 26 shows the average health care experience (HCE) hours of matriculants for responding programs. Fifty-five percent of programs (n = 106) collect information on the average number of hours of HCE or work/volunteer experience.

There was an increase in the average HCE hours for matriculating students between this year and the last. For instance, the average number of community service hours of matriculating students more than doubled from 424.8 (Mdn=269.9, SD=480.0) to 869.0 (Mdn=322.0, SD=2,245.2) the previous year. This year's matriculants reported more work experience prior to entering their PA program, with an average of 3,272.3 hours of other HCE hours (Mdn=2,297.0, SD=2,157.2), as compared to the previous year's cohort, which had an average of 1,013.6 other HCE hours (Mdn=713.0, SD=943.0). Fifty-five programs reported that their students averaged 160.4 hours of shadowing experience, as compared to last year, when 45 programs reported an average of 144.2 hours of shadowing experience per matriculant.

The 2015 Cohort

Programs were asked to provide information for their 2015 cohort. The cohort is defined as the group of students who entered into a program expecting to graduate in 2015. For most programs, this group started in 2013.

TABLE 27. 2015 COHORT: ENROLLMENT AT MATRICULATION

2015 Cohort	M	SD	Mdn	% of class	n (P)	n (S)
New students	47.0	24.0	42.0	97.7	164	7,705
Decelerated students from previous class	0.8	1.2	0.0	1.6	164	128
Delayed/Deferred admission from previous year	0.1	0.3	0.0	0.2	164	15
Other students	0.2	1.5	0.0	0.5	163	38
Total	48.1	24.6	44.0	100.0	164	7,888

Table 27 shows the average number and percentage of class of new students, decelerated students from a previous class, and students who delayed or deferred admissions from the previous year. The average number of new students per class increased from 44.9 in 2014 to 47.0 in 2015, however, the median number of students remained at 42.0 students per class.

FIGURE 13A. ESTIMATED NATIONAL TOTAL PA PROGRAM GRADUATES, 1985–2015

FIGURE 13B. ESTIMATED AVERAGE PA PROGRAM GRADUATES, 1985–2015
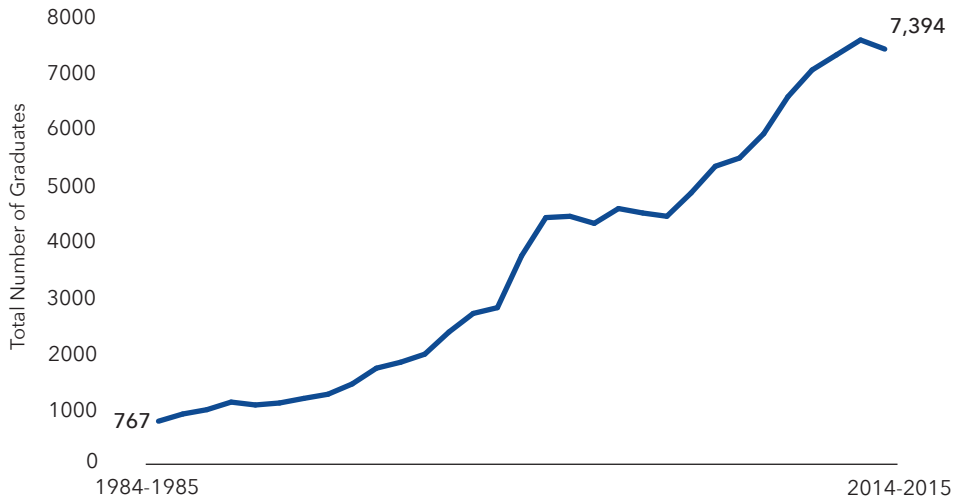
Figures 13A and 13B show the estimated national total PA program graduates and the estimated average PA program graduates, respectively. In the 2014-2015 Program Survey, we added an additional question that asked for the aggregate number of students who will graduate, or have graduated, as part of the 2014-2015 cohort. On previous Program Surveys, we had estimated numbers of graduates by summing all students in the graduating cohort at the time of matriculation. This inflated the estimates of graduates because not all students who matriculate graduate. We feel that the new question and method of estimating PA graduates provides a more accurate estimate of national PA program graduates.

TABLE 28. 2015 COHORT: GRADUATION, DECELERATION, AND WITHDRAWAL RATES BY GENDER

Cohorts	%	M	SD	Mdn	n (P)	n (S)
Males						
Graduated	90.1	12.5	12.0	10.0	163	2,037
Decelerated	3.5	0.5	1.3	0.0	163	80
Withdrawn	6.4	0.9	2.1	1.0	163	144
Total	**100.0**	**13.9**	**14.4**	**11.0**	**163**	**2,261**
Females						
Graduated	94.1	32.2	15.3	29.0	163	5,249
Decelerated	2.3	0.8	1.4	0.0	163	126
Withdrawn	3.7	1.3	1.6	1.0	163	204
Total	**100.0**	**34.2**	**15.9**	**31.0**	**163**	**5,579**
Unknown Gender						
Graduated	NR	NR	NR	NR	162	0
Decelerated	26.3	0.0	0.2	0.0	163	5
Withdrawn	73.7	0.1	0.7	0.0	163	14
Total	100.0	0.1	0.7	0.0	163	19
Total						
Graduated	90.8	45.3	22.5	40.0	163	7,385
Decelerated	2.6	1.3	2.3	0.0	163	211
Withdrawn	4.5	2.2	3.3	1.0	163	362
Dismissed	2.1	1.1	1.6	0.0	162	174
Total	**100.0**	**49.9**	**25.4**	**44.0**	**163**	**8,132**

Table 28 shows that the average percentage of male students who withdrew or decelerated (3.5%, 6.4%) was higher than female students (2.2%, 2.5%). The average graduation rate for PA students was 90.8%, which was lower than last year (94.1%). Female PA students had a higher graduation rate (94.1%) than male PA students (90.1%).

TABLE 29. 2015 COHORT: GRADUATION, DECELERATION, AND WITHDRAWAL RATES BY ETHNICITY

	%	n (P)	n (S)
Graduated			
Hispanic	90.9	160	447
Non-Hispanic	93.4	160	5,365
Unknown	96.5	160	858
Decelerated			
Hispanic	4.3	160	21
Non-Hispanic	2.2	160	126
Unknown	1.4	160	13
Withdrawn			
Hispanic	4.9	160	24
Non-Hispanic	4.4	160	252
Unknown	2.0	160	18
Total			
Hispanic	100.0	160	492
Non-Hispanic	100.0	160	5,743
Unknown	100.0	160	889

TABLE 30. 2015 COHORT: GRADUATION, DECELERATION, AND WITHDRAWAL RATES BY RACE

	%	*n* (P)	*n* (S)
Graduated			
American Indian or Alaskan Native	86.4	163	38
Asian	90.9	163	490
Black or African American	80.3	163	253
Multiracial	96.6	163	85
Native Hawaiian or Pacific Islander	76.9	163	10
White	94.7	163	5,359
Other	79.4	163	200
Do not know	88.2	163	747
Decelerated			
American Indian or Alaskan Native	NR	163	NR
Asian	3.5	163	17
Black or African American	9.5	163	30
Multiracial	NR	163	NR
Native Hawaiian or Pacific Islander	NR	163	NR
White	1.7	163	95
Other	5.6	163	14
Do not know	NR	163	NR
Withdrawn			
American Indian or Alaskan Native	NR	163	NR
Asian	5.9	163	32
Black or African American	10.2	163	32
Multiracial	0.0	163	0
Native Hawaiian or Pacific Islander	NR	163	NR
White	3.7	163	207
Other	15.1	163	38
Do not know	11.5	163	97
Total			
American Indian or Alaskan Native	100.0	163	44
Asian	100.0	163	539
Black or African American	100.0	163	315
Multiracial	100.0	163	88
Native Hawaiian or Pacific Islander	100.0	163	13
White	100.0	163	5,661
Other	100.0	163	252
Do not know	100.0	163	847

Table 30 displays the 2015 cohort graduation, deceleration, and withdrawal rates. There were observed racial disparities in graduation, deceleration, and withdrawal rates for the 2015 cohort. However, due to the unequal sample sizes – the sample sizes of students of color are much smaller than those of White students – the impact of one student of color being decelerated or withdrawn would be disproportionately higher than if a White student were decelerated or withdrawn. Additionally, because only 84% of programs answered this question, this data cannot be said to be representative of PA students.

TABLE 31. 2015 COHORT: REASONS FOR WITHDRAWAL AND DISMISSAL

Reasons	%	*n* (P)	*n* (S)
Academic dismissal	32.9	194	211
Non-academic dismissal	7.0	194	45
Medical reasons	7.8	194	50
Personal reasons	19.5	194	125
Decelerated short term	11.2	194	72
Decelerated to the next cohort	21.7	194	139
Total	**100.0**	**194**	**642**

Table 31 displays the 2015 cohort reasons for withdrawal or dismissal. 65% of withdrawn Black or African American students were withdrawn for academic reasons, while 22% were withdrawn for personal reasons. 61% of "Other" race students were withdrawn for personal reasons and 26% were withdrawn for academic reasons.

SECTION 5: VOLUNTEER AND COMMUNITY SERVICE

TABLE 32. INTEGRATION OF SERVICE LEARNING AND COMMUNITY/VOLUNTEER SERVICE INTO PA PROGRAM CURRICULUM

Community/Volunteer Activities	%	n (P)
Service learning is a required part of the formal curriculum (e.g., a course or module)	40.7	79
Service learning is an elective part of the formal curriculum	14.4	28
Community/volunteer service is required, and not part of the formal curriculum	18.0	35
Community service is encouraged, and not part of the formal curriculum	56.2	109
Other	5.2	10

Table 32 summarizes the integration of service learning and community/volunteer service into PA program curriculum. 59% of PA programs require either service learning or community/ volunteer service. For programs that required service learning, an average of 21 hours of service learning was required (Mdn=12.0 hours, SD=27.6 hours). For programs that required community/volunteer service, an average of 31.7 hours was required (Mdn=12.0 hours, SD=75.5).

TABLE 33. PERCENTAGE OF SERVICE ACTIVITIES SPENT WITH OTHER STUDENTS

% of Time Spent	M (%)	Mdn (%)	SD (%)	n (P)
PA students alone	41.5	50.0	36.5	121
PA students and other health professions students	42.2	32.5	37.1	142
PA students and other non-health professions students	14.1	5.0	23.7	94

TABLE 34. TIMING AND INTEGRATION OF MISSION TRIPS IN THE PA PROGRAM CURRICULUM

Mission Trips	%	n (P)
Program has no mission trips	58.9	109
International medical mission is formally integrated into the curriculum	9.7	18
International medical mission occurs during breaks or vacation (external to curriculum)	29.2	54
International non-medical mission is formally integrated into the curriculum	0.0	0
International non-medical mission occurs during breaks or vacation (external to curriculum)	3.2	6
Medical mission within the US is formally integrated into the curriculum	2.2	4
Medical mission within the US occurs during breaks or vacation (external to curriculum)	5.4	10
Non-medical mission within the US is formally integrated into the curriculum	0.5	1
Non-medical mission within the US occurs during breaks or vacation (external to curriculum)	1.6	3

FUTURE DIRECTIONS

In order to reduce the burden on program directors and to ensure maximum data validity and reliability, PAEA is exploring the use of existing databases as a substitute source for some of the data currently reported by program directors.

PAEA will continue to solicit and include questions from the STAR program. Given the removal of the employee profile section from the program survey, the inclusion of these extra questions will not make the survey much longer than it was before.

PAEA welcomes requests from researchers who wish to conduct additional analyses of the data. Data request forms can be found on our website at PAEAonline.org.

Under the guidance of the Research Council, PAEA research staff will periodically add research questions of interest.

Thank You

PAEA would like to thank all member programs — and especially program directors — for contributing the data that form the basis of this report. PAEA appreciates your continuing commitment to providing complete and accurate information, which ensures the data are as reliable and valid as possible.

ADDENDUM A

Breaking It Down: Student-to-Faculty Ratio According to Key PA Program Characteristics

Why We Made the Change

Calculation of student-to-faculty ratio (SFR) is trickier than one might think. Although at first it may seem quite cut-and-dried – you divide the total number of students by the total faculty – there is debate about the "best" way to calculate SFR. For example, in this study by the National Postsecondary Education Cooperative, the question of which types of faculty and students to include in the equation is debated. Some health professions associations do not even calculate SFR because of the multiple confounding factors and unique circumstances that can render such a figure non-applicable or even inappropriate for comparison purposes.

For many years, the PAEA Research Department calculated SFR by dividing the total number of students, nationally, by the total number of core faculty, nationally. The problem with this method of calculating SFR is that it assumes all programs are the same size, with the same number of students and faculty. To address this problem, in this report (Program Report 31), this ratio was calculated by determining each individual program's SFR and then averaging all SFRs nationally. From a statistical standpoint, this method of calculating the national SFR better accounts for differences in program size.

Some PA faculty and program directors, especially in programs up for accreditation or reaccreditation, are understandably nervous about this change in the method of calculating SFR. In this addendum, we break down the SFR according to several variables of interest (how many cohorts a given program may have enrolled in a given academic year, total number of students, cohort size, etc.). It is important to note that we are not engaging in any type of benchmarking in the presentation of these data. These are strictly informational and by no means suggestions or standards for PA programs.

The following data are drawn from the 2014-2015 PAEA Program Survey data and represent 188 PA programs that reported on their students and faculty that year. We have not tested for statistically significant differences or run any analysis on the figures presented below; they are merely descriptive statistics.

TABLE 35. PA PROGRAM STUDENT-TO-FACULTY RATIOS BY CATEGORY, 2015

	n	*M*	*SD*	P10	P25	P50	P75	P90
Overall	188	15.29	6.76	7.00	11.00	14.69	19.00	22.50
Program length								
Less than 24 months	7	10.19	5.41	4.40	5.75	9.92	12.73	NR
24 months	48	12.73	4.05	6.97	10.44	12.69	14.98	18.64
25-26 months	19	13.75	4.32	7.20	9.67	13.75	16.83	19.83
27 months	58	18.50	9.25	6.00	11.94	18.30	23.00	29.84
28 months	27	15.06	4.54	7.67	12.00	15.20	18.67	21.60
29-30 months	15	15.64	5.88	5.02	11.25	16.43	21.08	22.19
31+ months	14	15.52	4.17	8.81	12.75	16.55	17.91	21.14

Table 35 summarizes the PA program student-to-faculty ratios according to key PA program characteristics.

	n	*M*	*SD*	P10	P25	P50	P75	P90
Number of classes enrolled in 2014-2015 academic year								
One cohort	26	10.07	5.55	4.82	5.94	7.25	13.38	19.06
Two cohorts	69	13.15	4.41	7.40	10.00	12.93	15.38	19.50
Three cohorts	93	18.34	7.04	11.55	13.19	17.56	21.31	26.73
Programs > 24 months								
SFR based on 1 class	133	6.47	2.38	3.80	4.75	6.40	7.62	9.60
SFR based on 2 classes	125	12.62	4.69	7.63	9.32	12.14	15.00	18.80
SFR based on 3 classes	94	18.70	6.96	12.08	13.80	17.93	22.17	26.42
Total program size								
0-50 students	24	7.69	3.46	3.87	5.81	6.83	9.51	12.50
51-100 students	66	13.99	4.34	8.54	10.95	13.31	16.95	20.25
101-150 students	60	17.15	5.89	11.80	12.93	16.85	20.07	22.50
151-200 students	25	17.82	6.65	7.50	13.53	17.56	21.29	29.07
201+ students	13	22.54	10.73	10.49	15.19	21.08	26.71	43.10
Average cohort size								
0-25 students	19	9.51	5.01	3.33	6.00	8.50	12.50	19.00
26-50 students	115	15.13	5.92	7.12	11.25	14.67	18.30	22.25
51-75 students	35	17.83	8.32	10.21	12.17	16.60	20.38	29.07
76-100 students	12	18.96	7.24	6.79	13.43	19.88	24.05	29.46
Program status								
Provisional	39	11.43	6.74	5.00	6.00	10.00	14.75	21.43
Accredited	148	16.33	6.43	9.58	12.10	15.51	19.82	22.78
Provisionally accredited programs								
One cohort	15	6.51	2.22	3.97	5.17	6.00	7.00	10.97
Two cohorts	15	11.46	4.39	4.44	7.71	10.60	15.00	18.42
Three cohorts	9	19.55	7.33	12.57	12.77	18.60	25.93	NR
Accredited programs								
One cohort	11	14.93	5.01	6.21	12.00	15.10	18.60	22.03
Two cohorts	54	13.61	4.34	8.40	10.48	13.31	16.67	19.85
Three cohorts	83	18.29	7.06	11.25	1.67	17.56	21.08	24.75
Provisionally accredited programs								
< 24 months	NR	NR	NR	NR	NR	NR	NR	NR
24 months	10	9.14	4.24	3.60	6.30	8.18	11.20	17.73
> 24 months	26	12.98	7.34	5.12	6.75	12.54	15.90	24.46
Accredited programs								
< 24 months	NR	NR	NR	NR	NR	NR	NR	NR
24 months	38	13.67	3.47	10.00	11.58	13.17	15.08	19.05
> 24 months	106	17.39	7.00	9.19	12.98	17.07	20.76	23.80
Public vs. private								
Public	60	14.31	5.64	7.04	10.45	13.91	17.83	21.35
Private	124	15.84	7.24	7.06	11.78	15.00	19.84	23.00

	n	*M*	*SD*	P10	P25	P50	P75	P90
Academic health center								
AHC	66	15.89	5.64	9.11	12.54	15.51	19.06	22.33
Non-AHC	122	14.97	7.30	6.77	10.43	13.42	19.00	22.68
Administrative housing								
College/school of medicine	27	15.20	5.70	5.90	11.60	15.40	19.80	22.60
Science department	3	15.33	6.02	11.25	11.25	12.50	NR	NR
School of allied health/health professions/health sciences	95	15.09	6.95	7.00	10.83	14.25	18.25	21.35
College of arts and sciences	7	13.76	9.06	6.40	7.38	9.25	23.00	NR
College of graduate and professional studies	11	17.51	4.62	11.51	12.73	18.00	21.08	24.47
Department/school of physician assistants	37	15.42	7.54	6.25	10.55	13.58	20.26	22.72
Other health discipline (nursing/pharmacy/podiatric)	2	19.08	4.48	15.83	15.83	19.08	NR	NR
Census region								
Northeast	59	14.38	5.76	6.67	12.00	15.00	9.86	22.50
Midwest	45	14.36	5.95	7.16	10.65	13.00	17.68	22.35
South	61	15.90	7.43	6.38	11.59	15.43	19.91	23.43
West	23	15.27	8.76	6.64	9.27	12.88	19.83	27.05

What the Data Say

The overall mean national SFR in the new calculation model for the 2015-2016 academic year was 15.29, while the median national SFR was 14.69, as shown in the table. Just to give you some context for the new calculation of this year's SFR, when recalculated according to the new method, the SFR for 2012-2013 was 17.7 and the SFR for 2013-2014 was 18.6.

The first variable by which we disaggregated SFR is program length. The largest categories of program length are 24 months (48 programs) and 27 months (58 programs), and there appears to be a substantial difference in SFR between these categories, with programs that are 24 months long having a mean SFR of 12.73 and 27-month programs having a mean SFR of 18.50. This could be because longer programs tend to have three cohorts running simultaneously while programs that are 24 months or shorter typically have only two cohorts running simultaneously. This is clear in the category of "Number of classes enrolled in 2014-2015 academic year," where the mean SFRs for programs with two cohorts was 13.15 and for programs with three cohorts was 18.34. Programs with one cohort running in 2014-2015 had an average SFR of 10.07.

The next categories of note are "Total program size" and "Average cohort size," which not surprisingly show that as the total number of students and average cohort size increase, so does the SFR. As the table shows, programs with 50 or fewer students, of which there were 24 programs in 2015-16, had an average SFR of 7.69, while programs with 201+ students, of which there were 13 programs, had an average SFR of 22.54. Similarly, there is a general upward arc in mean SFR according to average cohort size, with a noticeable jump between programs that have an average cohort size of 0-25 students – with an average SFR of 9.51 – and programs that have an average cohort size of 26-50 students – with an average SFR of 15.13.

In terms of accreditation status, fully accredited programs had a higher mean SFR than provisionally accredited programs. This is most likely because provisionally accredited programs have fewer students. We further disaggregated these categories by number of cohorts running concurrently in 2015-2016 and found that this trend holds for programs with one or two concurrent cohorts but not for three cohorts. Provisionally accredited programs with three concurrent cohorts actually had a higher average, 19.55, than accredited programs with three concurrent cohorts, 18.29. However, independent means tests were not run, and this difference cannot be said to be statistically significant.

This same trend of fully accredited programs having a higher SFR, which increases with number of concurrent cohorts (up to three), continues when we look at program length. For instance, the majority of provisionally accredited programs are 24 months or longer (26 programs), and these have an SFR of 12.98, compared to 17.39 for accredited programs that are 24 months or longer (109 programs).

Notably, there was not much difference in SFR for a number of other variables, including public vs. private status, AHC status, administrative housing, and census region. As the table shows, the average SFR was very similar for both public and private programs, and the same can be said for AHC and non-AHC programs.

How to Use This Information and Further Uses of This Data

Developing programs and programs doing self-study for accreditation purposes often refer to the SFR reported in the PAEA Program Reports in order to compare it to their own SFR. The figures in this report are not meant to be benchmarks, but they can be useful to programs as ballpark comparisons for programs sharing similar characteristics, such as average cohort size or total student body size.

Finally, beyond this disaggregation of the national, overall average SFR by a few key variables, there are even deeper dives that could be taken into this data. If you would like to investigate further, the PAEA Research Department is happy to provide either raw data or a research report written to your specifications.

Or, if you have further questions, please contact the PAEA Research Department at research@PAEAonline.org.

UPDATES

January 2017

    Addendum A added to report

May 2017

    Table 7 – updated table data and footnote

    Table 35 – updated table data for Administrative Housing section only

June 2017

    Figures 13A and 13B – updated figures and marginalia