

AACP SPECIAL REPORT

The Pharmacy Student Population: Applications Received 2015-16, Degrees Conferred 2015-16, Fall 2016 Enrollments

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INTRODUCTION

This report presents data that describe the 2015-16 pharmacy application pool, degrees conferred in 2015-16, and fall 2016 pharmacy program enrollments. Data for this report were requested from 138 U.S. colleges and schools of pharmacy recognized by the Accreditation Council for Pharmacy Education (ACPE) using five separate survey instruments.

There were previously two professional education programs at U.S. colleges and schools of pharmacy: one leading to a baccalaureate in pharmacy, and the other leading to the doctor of pharmacy (Pharm.D.) degree. However, June 30, 2005 marked the official expiration of the ACPE standards to the baccalaureate in pharmacy (B.S. Pharmacy) degree programs in accordance with the transition to the doctor of pharmacy (Pharm.D.) degree as the sole professional degree program in the U.S. Some colleges and schools of pharmacy conferred degrees in the B.S. Pharmacy program until 2004-05. For the purpose of this report, students in doctor of pharmacy programs are categorized under Pharm.D.1 when the program leads to a doctor of pharmacy degree conferred as the first professional degree. Students who have already received a baccalaureate in pharmacy and are enrolled in a doctor of pharmacy degree program are categorized under Pharm.D.2.

The following definitions refer to the race/ethnicity groups as used in this report. White refers to U.S. citizens or permanent residents having origins in any of the original peoples of Europe, the Middle East, or North Africa. Black or African American refers to U.S. citizens or permanent residents having origins in any of the black racial groups of Africa. Hispanic or Latino refers to U.S. citizens or permanent residents of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race. Asian refers to U.S. citizens or permanent residents having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian Subcontinent, including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam. Native Hawaiian or Other Pacific Islander refers to U.S. citizens or permanent

residents having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands. Prior to 2011, these students were included in the Asian category. American Indian or Alaska Native refers to U.S. citizens or permanent residents having origins in any of the original peoples of North and South America (including Central America) who maintains cultural identification through tribal affiliation or community attachment. Two or More Races refers to U.S. citizens or permanent residents who are not Hispanic or Latino and identify themselves by more than one race. Unknown refers to U.S. citizens or permanent residents whose race and ethnicity are not known. Prior to 2011, this category was labeled Other/Unknown and students that were of two or more races were included in this category. Finally, International/Foreign refers to citizens of a foreign country/permanent residents of a country other than the U.S.

2015-16 APPLICATION POOL

The 2015-16 Application Pool Survey was conducted online in October 2016 with an announcement and request for participation sent to the survey coordinator at each of the 138 colleges and schools of pharmacy in the U.S. recognized by ACPE. After follow-up correspondence, 137 colleges and schools (99.3%) submitted the requested information. Included in the application pool are applicants who applied for admission and submitted all required application materials as defined by the Pharmacy College Application Service (PharmCAS) between September 2015 and August 2016 for the entering class of fall 2016. Numbers reported represent the number of applications, not applicants, and may represent multiple applications submitted by individual applicants.

During the period September 2015 through August 2016 the reporting institutions received 78,514 applications for admission. In 2015-16, females submitted 60.4% of the applications to pharmacy colleges and schools; males submitted 38.6%; gender unknown/not reported submitted 1.0%. White Americans submitted 36.1% of the applications, Asian Americans submitted 32.1% of the applications, and underrepresented minorities submitted 19.0% of the applications (Black or African

Table 1. Distribution of 2015-16 Applications by Gender and Race/Ethnicity of Applicant^a

Race/Ethnicity	Male	Female	Gender Not Specified	Total (%)
White ^b	11,247	17,044	65	28,356 (36.1)
Black or African American ^b	3,654	5,916	8	9,578 (12.2)
Hispanic or Latino ^b	2,010	3,106	19	5,135 (6.5)
Asian ^b	9,577	15,547	92	25,516 (32.1)
Native Hawaiian or Other Pacific Islander ^b	30	16	0	46 (0.1)
American Indian or Alaska Native ^b	47	81	0	128 (0.2)
Two or more races ^b	979	1,455	5	2,439 (3.1)
Unknown ^b	1,537	2,217	583	4,337 (5.5)
International/Foreign ^c	1,192	2,055	32	3,279 (4.2)
Total	30,273	47,437	804	78,514

^aRepresents data, some incomplete, submitted by 137 schools

^bU.S. citizen or permanent resident

^cCitizens of a foreign country/permanent residents of a country other than the U.S

American, 12.2%; Hispanic or Latino, 6.5%; Native Hawaiian or Other Pacific Islander, 0.1%; American Indian or Alaska Native, 0.2%). Applications submitted from students that identified as two or more races totaled 3.1% and 4.2% of the applications were submitted by foreign, non-permanent residents [Table 1]. For the twelfth consecutive year, colleges and schools of pharmacy received more applications from out-of-state residents (55.0%) compared to 45.0% from in-state residents. The higher percentage of out-of-state applicants can be attributed to the ease of applying to colleges and schools of pharmacy in different states through PharmCAS.

Over 77% (77.2%) of the applications to colleges and schools of pharmacy were submitted by individuals who had 3 or more years of postsecondary experience (3 or more years of college/no degree, 37.2%; baccalaureate, 37.6%; master's, 2.1%; doctoral degree, 0.3%), [Table 2].

2015-16 DEGREES CONFERRED

The 2015-16 Undergraduate and Professional Pharmacy Degrees Conferred and Graduate Pharmacy Degrees Conferred surveys were conducted online in October

2016, with an announcement and request for participation sent to the survey coordinator at each of the 138 colleges and schools of pharmacy in the U.S. recognized by ACPE. Submission of the data was requested by December 2017. After follow-up correspondence, 137 colleges and schools (99.3%) submitted the Undergraduate and Professional Degrees Conferred Survey and the Graduate Degrees Conferred Survey.

Professional Degrees Conferred

Numbers of degrees conferred by U.S. colleges and schools of pharmacy from 1965 to 2016 are presented in Table 3.

First Professional Degrees Conferred

In 2015-16, 128 colleges and schools of pharmacy reported conferring the doctor of pharmacy as a first professional degree (Pharm.D.1). Graduating Pharm.D.1 class sizes ranged from 32 students to 334 students (median, 98 students). Nine of the 137 colleges and schools did not confer degrees in 2015-16. These schools were new programs whose students had not yet progressed

Table 2. Distribution of 2015-16 Applications to First Professional Degree Programs by Gender and Previous Postsecondary Experience of Applicant^a

Postsecondary Experience	Male	Female	Gender Not Specified	Total (%)
0 Years of College	2,929	4,873	2	7,804 (9.9)
1-2 Years of College/No Degree	1,473	2,587	41	4,101 (5.2)
Associate's Degree	2,501	3,476	55	6,032 (7.7)
3 or More Years of College/No Degree	11,140	17,839	250	29,229 (37.2)
Baccalaureate Degree	11,499	17,594	396	29,489 (37.6)
Master's Degree	655	960	46	1,661 (2.1)
Doctoral Degree	80	116	1	197 (0.3)

^aRepresents data, some incomplete, submitted by 137 schools

Table 3. Number of Pharmacy Degrees Conferred 1965-2016 by Degree and Gender

Year	B.S. Pharmacy ^a			Pharm.D.1 ^b			First Professional ^c			Pharm.D.2 ^d			M.S.			Ph.D.		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
1965	2,723	454	3,177	162	21	183	2,885	475	3,360				150	26	176	105	3	108
1966	2,970	500	3,470	161	28	189	3,131	528	3,659				152	38	190	108	15	123
1967	3,078	493	3,571	136	37	173	3,214	530	3,744				235	32	267	118	8	126
1968	3,194	572	3,766	183	39	222	3,377	611	3,988				219	44	263	124	10	134
1969	3,384	695	4,079	178	31	209	3,562	726	4,288				235	42	277	136	9	145
1970	3,664	853	4,517	192	49	241	3,856	902	4,758				236	54	290	131	10	141
1971	3,589	935	4,524	160	63	223	3,749	998	4,747				219	56	275	169	8	177
1972	3,498	1,072	4,570	215	73	288	3,713	1,145	4,858				205	56	261	155	13	168
1973	3,674	1,259	4,933	184	67	251	3,858	1,326	5,184	99	18	117	273	53	326	172	15	187
1974	4,104	1,559	5,663	205	89	294	4,309	1,648	5,957	117	23	140	250	70	320	165	19	184
1975	4,607	1,792	6,399	218	95	313	4,825	1,887	6,712	110	26	136	250	89	339	165	24	189
1976	4,940	2,165	7,105	250	109	359	5,190	2,274	7,464	88	38	126	301	92	393	163	26	189
1977	5,108	2,541	7,649	255	107	362	5,363	2,648	8,011	147	42	189	309	90	399	147	19	166
1978	4,715	2,715	7,430	246	109	355	4,961	2,824	7,785	132	65	197	305	117	422	158	20	178
1979	4,260	2,835	7,095	278	183	461	4,538	3,018	7,556	139	51	190	301	134	435	125	28	153
1980	4,154	2,831	6,985	267	180	447	4,421	3,011	7,432	120	60	180	315	150	465	155	34	189
1981	3,753	3,116	6,869	265	189	454	4,018	3,305	7,323	109	101	210	271	163	434	152	28	180
1982	3,417	3,031	6,448	217	194	411	3,634	3,225	6,859	119	88	207	293	165	458	146	36	182
1983	2,994	2,925	5,919	240	215	455	3,234	3,140	6,374	136	135	271	277	149	426	154	54	208
1984	2,826	2,720	5,546	188	229	417	3,014	2,949	5,963	169	162	331	253	141	394	174	53	227
1985	2,362	2,785	5,147	281	307	588	2,643	3,092	5,735	121	103	224	210	128	338	175	57	232
1986	2,370	2,820	5,190	278	332	610	2,648	3,152	5,800	97	113	210	245	170	415	192	68	260
1987	2,235	2,929	5,164	291	399	690	2,526	3,328	5,854	86	126	212	197	151	348	203	80	283
1988	2,245	3,126	5,371	322	491	813	2,567	3,617	6,184	74	85	159	194	159	353	188	75	263
1989	2,313	3,408	5,721	314	525	839	2,627	3,933	6,560	99	123	222	226	165	391	175	112	287
1990	2,393	3,617	6,010	388	558	946	2,781	4,175	6,956	118	184	302	202	183	385	181	92	273
1991	2,268	3,659	5,927	436	759	1,195	2,704	4,418	7,122	106	165	271	189	175	364	201	112	313
1992	2,261	3,636	5,897	436	780	1,216	2,697	4,416	7,113	124	162	286	148	134	282	195	122	317
1993	2,244	3,787	6,031	460	889	1,349	2,704	4,676	7,380	141	255	396	148	153	301	223	125	348
1994	2,274	3,871	6,145	435	924	1,359	2,709	4,795	7,504	208	367	575	182	173	355	198	122	320
1995	2,291	3,927	6,218	553	1,066	1,619	2,844	4,993	7,837	270	434	704	187	205	392	218	132	350
1996	2,311	3,857	6,168	583	1,252	1,835	2,894	5,109	8,003	264	468	732	217	205	422	186	118	304
1997	2,212	3,556	5,768	691	1,313	2,004	2,903	4,869	7,772	321	538	859	191	209	400	218	140	358
1998	1,818	2,950	4,768	830	1,802	2,632	2,648	4,752	7,400	351	663	1,014	197	224	421	238	173	411
1999	1,528	2,348	3,876	1,081	2,184	3,265	2,609	4,532	7,141	315	598	913	172	212	384	221	138	359
2000	1,115	1,841	2,956	1,432	2,872	4,304	2,547	4,713	7,260	469	800	1,269	154	200	354	174	149	323
2001	754	1,160	1,914	1,730	3,356	5,086	2,484	4,516	7,000	367	612	979	182	279	461	211	164	375
2002	540	875	1,415	2,055	4,103	6,158	2,595	4,978	7,573	276	504	780	178	265	443	216	160	376
2003	303	536	839	2,333	4,316	6,649	2,636	4,852	7,488	338	557	895	199	273	472	210	174	384
2004	153	235	388	2,568	5,202	7,770	2,721	5,437	8,158	277	479	756	274	377	651	176	159	335
2005	16	10	26	2,618	5,624	8,242	2,634	5,634	8,268	241	427	668	233	393	626	215	214	429
2006	0	0	0	2,875	6,165	9,040	2,875	6,165	9,040	202	313	515	241	403	644	252	190	442
2007	0	0	0	3,171	6,641	9,812	3,171	6,641	9,812	97	373	470	236	368	604	220	192	412
2008	0	0	0	3,575	6,925	10,500	3,575	6,925	10,500	225	402	627	275	457	732	262	206	468
2009	0	0	0	3,912	7,076	10,988	3,912	7,076	10,988	179	349	528	371	396	767	228	230	458
2010	0	0	0	4,287	7,200	11,487	4,287	7,200	11,487	191	336	527	343	430	773	243	207	450
2011	0	0	0	4,553	7,378	11,931	4,553	7,378	11,931	167	248	415	352	470	822	250	221	471
2012	0	0	0	4,937	7,782	12,719	4,937	7,782	12,719	163	281	444	298	383	681	275	222	497
2013	0	0	0	5,063	8,144	13,207	5,063	8,144	13,207	132	212	344	265	390	655	293	296	589
2014	0	0	0	5,483	8,355	13,838	5,483	8,355	13,838	110	229	339	340	435	775	298	267	565
2015	0	0	0	5,369	8,625	13,994	5,369	8,625	13,994	88	185	273	326	394	720	312	249	561
2016	0	0	0	5,635	8,921	14,556	5,635	8,291	14,556	120	206	326	411	612	1,023	297	250	547

through the entire curriculum (California Health Sciences, Chapman, Keck Graduate Institute, Marshall B. Ketchum, West Coast, Larkin, High Point, North Texas, and Texas at Tyler).

In 2015-16 there were 14,556 first professional degrees conferred by colleges and schools compared to 13,994 in 2014-15 [Table 4]. The total number of first professional degrees conferred in 2015-16 represented a 4.0% increase from the total number of first professional degrees conferred in 2014-15 [Table 5].

In 1979-80, men received 59.5% of the first professional degrees conferred by colleges and schools and women received 40.5%. Over the past 35 years, these percentages have shifted dramatically and, in 2015-16, men received 38.7% of the first professional degrees conferred and 61.3% of these degrees were received by women. Women received the highest percentage of degrees conferred in 2005-06 (68.2%) [Table 6]. White Americans received 53.2% of first professional degrees conferred in 2015-16. Asian Americans received 24.6% of the first professional degrees. Underrepresented minorities received 12.2% of the first professional degrees conferred in 2015-16 (Black or African American, 7.3%; Hispanic or Latino, 4.4%; Native Hawaiian or Other Pacific Islander, 0.2%; American Indian or Alaska Native, 0.3 %). The percentage of first professional degree recipients who were of two or more races was 2.2% and the percentage of recipients who were foreign, nonpermanent residents of the U.S. was 2.7% [Table 7].

Doctor of Pharmacy Degrees Conferred to Post Baccalaureate Students

Eight colleges and schools conferred the Pharm.D. degree to post baccalaureate students in 2015-16. The number of graduates per institution ranged from 1 to 110 students (median, 30 students). The number of doctor of pharmacy degrees conferred as postbaccalaureate degrees (Pharm.D.2) increased by 19.4% to 326 in 2015-16 from 273 in 2014-15 [Table 5]. More women than men received Pharm.D.2 degrees in 2014-15 (women, 63.2%; men, 36.8%) [Table 6].

White Americans received 28.5% of Pharm.D.2 degrees conferred in 2015-16. Asian Americans received 19.3% of the Pharm.D.2 degrees conferred. Underrepresented minorities received 21.5% of the Pharm.D.2 degrees conferred (Black or African American, 17.8%; Hispanic or Latino, 2.5%; Native Hawaiian or Other Pacific Islander, 0.9%; American Indian or Alaska Native, 0.3%). Students of two or more races received 0.0 of Pharm.D.2 degrees conferred in 2015-16. The percentage of Pharm.D.2 degree recipients who were foreign,

Table 4. Baccalaureate and Doctor of Pharmacy (Pharm.D.1) Degrees as Percentages of Total First Professional Degrees Conferred 1981-2016

Year	B.S. Pharmacy ^a	Pharm.D.1 ^b	First Professional ^c
	n (%)	n (%)	n
1981	6,869 (93.8)	454 (6.2)	7,323
1982	6,448 (94.0)	411 (6.0)	6,859
1983	5,919 (92.9)	455 (7.1)	6,374
1984	5,546 (93.0)	417 (7.0)	5,963
1985	5,147 (89.7)	588 (10.3)	5,735
1986	5,190 (89.5)	610 (10.5)	5,800
1987	5,164 (88.2)	690 (11.8)	5,854
1988	5,371 (86.9)	813 (13.1)	6,184
1989	5,721 (87.3)	839 (12.7)	6,560
1990	6,010 (86.4)	946 (13.6)	6,956
1991	5,927 (83.2)	1,195 (16.8)	7,122
1992	5,897 (82.9)	1,216 (17.1)	7,113
1993	6,031 (81.7)	1,349 (18.3)	7,380
1994	6,145 (81.9)	1,359 (18.1)	7,504
1995	6,218 (79.3)	1,619 (20.7)	7,837
1996	6,168 (77.1)	1,835 (22.9)	8,003
1997	5,768 (74.2)	2,004 (25.8)	7,772
1998	4,768 (64.4)	2,632 (35.6)	7,400
1999	3,876 (54.3)	3,265 (45.7)	7,141
2000	2,956 (40.7)	4,304 (59.3)	7,260
2001	1,914 (27.3)	5,086 (72.7)	7,000
2002	1,415 (18.7)	6,158 (81.3)	7,573
2003	839 (11.2)	6,649 (88.8)	7,488
2004	388 (4.8)	7,770 (95.2)	8,158
2005	26 (0.3)	8,242 (99.7)	8,268
2006	0 (0.0)	9,040 (100.0)	9,040
2007	0 (0.0)	9,812 (100.0)	9,812
2008	0 (0.0)	10,500 (100.0)	10,500
2009	0 (0.0)	10,988 (100.0)	10,988
2010	0 (0.0)	11,487 (100.0)	11,487
2011	0 (0.0)	11,931 (100.0)	11,931
2012	0 (0.0)	12,719 (100.0)	12,719
2013	0 (0.0)	13,207 (100.0)	13,207
2014	0 (0.0)	13,838 (100.0)	13,838
2015	0 (0.0)	13,994 (100.0)	13,994
2016	0 (0.0)	14,556 (100.0)	14,556

^aIncludes B.Pharm. degree

^bPharm.D.1 refers to the doctor of pharmacy degree awarded as the first professional degree

^cIncludes B.S. Pharmacy, B.Pharm., and Pharm.D.1

nonpermanent residents of the U.S. was 15.6%, down from 17.9% in 2014-15 [Table 8].

Graduate Degrees Conferred

The number of graduate degrees (M.S. and Ph.D.) conferred has shown annual fluctuations over the 50 years data have been consistently gathered and reported [Table 3]. The number of M.S. degrees conferred increased to 1,023 in 2015-16 from 720 in 2014-15, a 42.1% increase. The number

Table 5. Annual Percentage Change in Number of Pharmacy Degrees Conferred 1981-2016 Over Previous Year

Year	First Professional ^a No. (% Change)	Pharm.D.2 ^b No. (% Change)	M.S. No. (% Change)	Ph.D. No. (% Change)
1981	7,323 (-1.5)	210 (+16.7)	434 (-6.7)	180 (-4.8)
1982	6,859 (-6.3)	207 (-1.4)	458 (+5.5)	182 (+1.1)
1983	6,374 (-7.1)	271 (+30.9)	426 (-7.0)	208 (+14.3)
1984	5,963 (-6.4)	331 (+22.2)	394 (-7.5)	227 (+9.1)
1985	5,735 (-3.8)	224 (-32.3)	338 (-14.2)	232 (+2.2)
1986	5,800 (+1.1)	210 (-6.3)	415 (+22.8)	260 (+12.1)
1987	5,854 (+0.9)	212 (+1.0)	348 (-16.1)	283 (+8.8)
1988	6,184 (+5.6)	159 (-25.0)	353 (+1.4)	263 (-7.1)
1989	6,560 (+6.0)	222 (+39.6)	391 (+10.8)	287 (+9.1)
1990	6,956 (+6.0)	302 (+36.0)	385 (-1.5)	273 (-4.9)
1991	7,122 (+2.4)	271 (-10.3)	364 (-5.5)	313 (+14.7)
1992	7,113 (-0.1)	286 (+5.5)	282 (-22.5)	317 (+1.3)
1993	7,380 (+3.8)	396 (+38.5)	301 (+6.7)	348 (+9.8)
1994	7,504 (+1.7)	575 (+45.2)	355 (+17.9)	320 (-8.0)
1995	7,837 (+4.4)	704 (+22.4)	392 (+10.4)	350 (+9.4)
1996	8,003 (+2.1)	732 (+4.0)	422 (+7.7)	304 (-13.1)
1997	7,772 (-2.9)	859 (+17.3)	400 (-5.2)	358 (+17.8)
1998	7,400 (-4.8)	1,014 (+18.0)	421 (+5.3)	411 (+14.8)
1999	7,141 (-3.5)	913 (-10.0)	384 (-8.8)	359 (-12.7)
2000	7,260 (+1.7)	1,269 (+39.0)	354 (-7.8)	323 (-10.0)
2001	7,000 (-3.6)	979 (-22.9)	461 (+30.2)	375 (+16.1)
2002	7,573 (+8.2)	780 (-20.3)	443 (-3.9)	376 (+0)
2003	7,488 (-1.1)	895 (+14.7)	472 (+6.5)	384 (+2.1)
2004	8,158 (+8.9)	756 (-15.5)	651 (+37.9)	335 (-12.8)
2005	8,268 (+1.3)	668 (-11.6)	626 (-3.8)	429 (+28.1)
2006	9,040 (+9.3)	515 (-22.9)	644 (+2.9)	442 (+3.0)
2007	9,812 (+8.5)	470 (-8.7)	604 (-6.2)	412 (-6.8)
2008	10,500 (+7.0)	627 (+33.4)	732 (+21.2)	468 (+13.6)
2009	10,988 (+4.6)	528 (-15.8)	767 (+4.8)	458 (-2.1)
2010	11,487 (+4.5)	527 (-0.2)	773 (+0.8)	450 (-1.7)
2011	11,931 (+3.9)	415 (-21.3)	822 (+6.3)	471 (+4.7)
2012	12,719 (+6.6)	444 (+7.0)	681 (-17.2)	497 (+5.5)
2013	13,207 (+3.8)	344 (-22.5)	655 (-3.8)	589 (+18.5)
2014	13,838 (+4.8)	339 (-1.5)	775 (+18.3)	565 (-4.1)
2015	13,994 (+1.1)	273 (-19.5)	720 (-7.1)	561 (-0.7)
2016	14,556 (+4.0)	326 (+19.4)	1,023 (+42.1)	547 (-2.5)

^aIncludes B.S. Pharmacy, B.Pharm., and Pharm.D.1 from 1981-2005. Includes only Pharm.D.1 beginning in 2006

^bPharm.D.2 refers to the doctor of pharmacy degree awarded as a postbaccalaureate degree

of Ph.D. degrees conferred decreased in 2015-16 to 547 from 561 in 2014-15 (2.5% decrease) [Table 5].

The highest percentage of M.S. degrees awarded in 2015-16 (27.0%) was in social and administrative sciences. The second highest percentage of M.S. degrees was in pharmaceuticals (24.8%); followed by medicinal chemistry (19.8%); pharmacy practice (12.9%); pharmacology (12.0%); and other disciplines (3.4%). The highest number of Ph.D. degrees awarded in 2015-16 was in the discipline of pharmaceuticals (36.7%). The second highest number was in pharmacology (22.5%); followed by medicinal chemistry (18.6%); social and administrative sciences

(10.4%); other disciplines (7.5%); and pharmacy practice (4.2%) [Table 9].

More women than men earned M.S. degrees (women, 59.8%; men, 40.2%); however, more men than women earned Ph.D. degrees (women, 45.7%; men, 54.3%) in 2015-16. There have only been two years (2012-13 and 2008-09) since AACP began collecting data that women received more Ph.D. degrees than men. The percentage of women receiving Ph.D. degrees increased from 44.4% in 2014-15 to 45.7% in 2015-16. Overall, the number of Ph.D. degrees received by women has grown substantially from 18.0% in 1979-80 [Table 6].

Table 6. Percentage of Pharmacy Degrees Conferred 1980-2016 by Gender

Year	B.S. Pharmacy ^a		Pharm.D.1 ^b		First Professional ^c		Pharm.D.2 ^d		M.S.		Ph.D.	
	M	F	M	F	M	F	M	F	M	F	M	F
1980	59.5	40.5	59.7	40.3	59.5	40.5	66.7	33.3	67.7	32.3	82.0	18.0
1981	54.6	45.4	58.4	41.6	54.9	45.1	51.9	48.1	62.4	37.6	84.4	15.6
1982	53.0	47.0	52.8	47.2	53.0	47.0	57.5	42.5	64.0	36.0	80.2	19.8
1983	50.6	49.4	52.7	47.3	50.7	49.3	50.2	49.8	65.0	35.0	74.0	26.0
1984	51.0	49.0	45.1	54.9	50.5	49.5	51.1	48.9	64.2	35.8	76.7	23.3
1985	45.9	54.1	47.8	52.2	46.1	53.9	54.0	46.0	62.1	37.9	75.4	24.6
1986	45.7	54.3	45.6	54.4	45.7	54.3	46.2	53.8	59.0	41.0	73.8	26.2
1987	43.3	56.7	42.2	57.8	43.1	56.9	40.6	59.4	56.6	43.4	71.7	28.3
1988	41.8	58.2	39.6	60.4	41.5	58.5	46.5	53.5	55.0	45.0	71.5	28.5
1989	40.4	59.6	37.4	62.6	40.0	60.0	44.6	55.4	57.8	42.2	61.0	39.0
1990	39.8	60.2	41.0	59.0	40.0	60.0	39.1	60.9	52.5	47.5	66.3	33.7
1991	38.3	61.7	36.5	63.5	38.0	62.0	39.1	60.9	51.9	48.1	64.2	35.8
1992	38.3	61.7	35.9	64.1	37.9	62.1	43.4	56.6	52.5	47.5	61.5	38.5
1993	37.2	62.8	34.1	65.9	36.6	63.4	35.6	64.4	49.2	50.8	64.1	35.9
1994	37.0	63.0	32.0	68.0	36.1	63.9	36.2	63.8	51.3	48.7	61.9	38.1
1995	36.8	63.2	34.2	65.8	36.3	63.7	38.4	61.6	47.7	52.3	62.3	37.7
1996	37.5	62.5	31.8	68.2	36.2	63.8	36.1	63.9	51.4	48.6	61.2	38.8
1997	38.4	61.7	34.5	65.5	37.4	62.6	37.4	62.6	47.8	52.2	60.9	39.1
1998	38.1	61.9	31.5	68.5	35.8	64.2	34.6	65.4	46.8	53.2	57.9	42.1
1999	39.4	60.6	33.1	66.9	36.5	63.5	34.5	65.5	44.8	55.2	61.6	38.4
2000	37.7	62.3	33.3	66.7	35.1	64.9	37.0	63.0	43.5	56.5	53.9	46.1
2001	39.4	60.6	34.0	66.0	35.5	64.5	37.5	62.5	39.5	60.5	56.3	43.7
2002	38.2	61.8	33.4	66.6	34.3	65.7	35.4	64.6	40.2	59.8	57.4	42.6
2003	36.1	63.9	35.1	64.9	35.2	64.8	37.8	62.2	42.2	57.8	54.7	45.3
2004	39.4	60.6	33.1	66.9	33.4	66.6	36.6	63.4	42.1	57.9	52.5	47.5
2005	61.5	38.5	31.8	68.2	31.9	68.1	36.1	63.9	37.2	62.8	50.1	49.9
2006	NA	NA	31.8	68.2	31.8	68.2	39.2	60.8	37.5	62.5	57.0	43.0
2007	NA	NA	32.3	67.7	32.3	67.7	20.6	79.4	39.1	60.9	53.4	46.6
2008	NA	NA	34.0	66.0	34.0	66.0	35.9	64.1	37.6	62.4	56.0	44.0
2009	NA	NA	35.6	64.4	35.6	64.4	33.9	66.1	48.4	51.6	49.8	50.2
2010	NA	NA	37.3	62.7	37.3	62.7	36.2	63.8	44.4	55.6	54.0	46.0
2011	NA	NA	38.2	61.8	38.2	61.8	40.2	59.8	42.8	57.2	53.1	46.9
2012	NA	NA	38.8	61.2	38.8	61.2	36.7	63.3	43.8	56.2	55.3	44.7
2013	NA	NA	38.3	61.7	38.3	61.7	38.4	61.6	40.5	59.5	49.7	50.3
2014	NA	NA	39.6	60.4	39.6	60.4	32.4	67.6	43.9	56.1	52.7	47.3
2015	NA	NA	38.4	61.6	38.4	61.6	32.2	67.8	45.3	54.7	55.6	44.4
2016	NA	NA	38.7	61.3	38.7	61.3	36.8	63.2	40.2	59.8	54.3	45.7

^aIncludes B.Pharm. degree

^bPharm.D.1 refers to the doctor of pharmacy degree awarded as the first professional degree

^cIncludes B.S. Pharmacy, B.Pharm., and Pharm.D.1 from 1981-2005. Includes only Pharm.D.1 beginning in 2006

^dPharm.D.2 refers to the doctor of pharmacy degree awarded as a postbaccalaureate degree

NA: Not applicable

Underrepresented minorities received 12.3% of the M.S. degrees conferred in 2015-16 (Black or African American, 6.6%; Hispanic or Latino, 5.0%; Native Hawaiian or Other Pacific Islander, 0.4%; American Indian or Alaska Native, 0.3%), an increase from 6.7% in 2014-15. Asian Americans received 10.7% of the M.S. degrees conferred, down from 11.7% in 2014-15. The percentage

of M.S. degree recipients who were of two or more races was 1.6% and the % of degree recipients who were foreign, nonpermanent residents of the U.S. was 35.3%, down from 48.8% in 2014-15 [Table 11].

Underrepresented minorities earned 5.9% of the Ph.D. degrees awarded in 2015-16 (Black or African American, 2.9%; Hispanic or Latino, 2.7%; Native Hawaiian or

Table 7. Percentage of First Professional Degree (B.S. Pharmacy, B.Pharm., and Pharm.D.1) Recipients 1980-2016 by Race/Ethnicity

Year	White ^a		Black or African American ^a		Hispanic or Latino ^a		Asian ^a		Native Hawaiian or Pacific Islander ^a		American Indian or Alaska Native ^a		Two or More Races ^a		International/Foreign ^b	
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
1980	6,335 (85.2)	249 (3.4)	277 (3.7)	292 (3.9)	NA	NA	8 (0.1)	NA	NA	NA	8 (0.1)	NA	NA	49 (0.7)	222 (3.0)	
1981	6,205 (84.7)	230 (3.1)	361 (4.9)	288 (3.9)	NA	NA	5 (0.1)	NA	NA	NA	5 (0.1)	NA	NA	7 (0.1)	227 (3.1)	
1982	5,810 (84.7)	250 (3.6)	241 (3.5)	317 (4.6)	NA	NA	13 (0.2)	NA	NA	NA	13 (0.2)	NA	NA	18 (0.3)	210 (3.1)	
1983	5,189 (81.4)	241 (3.8)	261 (4.1)	316 (5.0)	NA	NA	8 (0.1)	NA	NA	NA	8 (0.1)	NA	NA	93 (1.5)	266 (4.2)	
1984	4,676 (78.4)	242 (4.1)	217 (3.6)	339 (5.7)	NA	NA	10 (0.2)	NA	NA	NA	10 (0.2)	NA	NA	174 (2.9)	305 (5.1)	
1985	4,591 (80.1)	250 (4.4)	245 (4.3)	320 (5.6)	NA	NA	6 (0.1)	NA	NA	NA	6 (0.1)	NA	NA	8 (0.1)	315 (5.5)	
1986	4,534 (78.2)	306 (5.3)	217 (3.7)	333 (5.7)	NA	NA	11 (0.2)	NA	NA	NA	11 (0.2)	NA	NA	0 (0.0)	399 (6.9)	
1987	4,559 (77.9)	298 (5.1)	258 (4.4)	371 (6.3)	NA	NA	8 (0.1)	NA	NA	NA	8 (0.1)	NA	NA	15 (0.3)	345 (5.9)	
1988	4,943 (79.9)	282 (4.6)	248 (4.0)	335 (5.4)	NA	NA	12 (0.2)	NA	NA	NA	12 (0.2)	NA	NA	27 (0.4)	337 (5.4)	
1989	5,040 (76.8)	310 (4.7)	249 (3.8)	454 (6.9)	NA	NA	12 (0.2)	NA	NA	NA	12 (0.2)	NA	NA	90 (1.4)	405 (6.2)	
1990	5,303 (76.2)	368 (5.3)	254 (3.7)	586 (8.4)	NA	NA	11 (0.2)	NA	NA	NA	11 (0.2)	NA	NA	88 (1.3)	346 (5.0)	
1991	5,381 (75.6)	350 (4.9)	288 (4.1)	745 (10.5)	NA	NA	20 (0.3)	NA	NA	NA	20 (0.3)	NA	NA	58 (0.8)	280 (3.9)	
1992	5,304 (74.6)	381 (5.4)	289 (4.1)	771 (10.8)	NA	NA	20 (0.3)	NA	NA	NA	20 (0.3)	NA	NA	40 (0.6)	308 (4.3)	
1993	5,346 (72.4)	452 (6.1)	260 (3.5)	873 (11.8)	NA	NA	19 (0.3)	NA	NA	NA	19 (0.3)	NA	NA	124 (1.7)	306 (4.1)	
1994	5,476 (73.0)	385 (5.1)	269 (3.6)	972 (13.0)	NA	NA	23 (0.3)	NA	NA	NA	23 (0.3)	NA	NA	122 (1.6)	257 (3.4)	
1995	5,584 (71.3)	445 (5.7)	282 (3.6)	1,161 (14.8)	NA	NA	28 (0.4)	NA	NA	NA	28 (0.4)	NA	NA	48 (0.6)	289 (3.7)	
1996	5,527 (69.1)	528 (6.6)	266 (3.3)	1,328 (16.6)	NA	NA	25 (0.3)	NA	NA	NA	25 (0.3)	NA	NA	56 (0.7)	273 (3.4)	
1997	5,364 (69.0)	446 (5.7)	282 (3.6)	1,363 (17.5)	NA	NA	34 (0.4)	NA	NA	NA	34 (0.4)	NA	NA	45 (0.6)	238 (3.1)	
1998	5,041 (68.1)	444 (6.0)	264 (3.6)	1,404 (19.0)	NA	NA	26 (0.4)	NA	NA	NA	26 (0.4)	NA	NA	58 (0.8)	163 (2.2)	
1999	4,597 (64.4)	401 (5.6)	266 (3.7)	1,327 (18.6)	NA	NA	36 (0.5)	NA	NA	NA	36 (0.5)	NA	NA	366 (5.1)	148 (2.1)	
2000	4,517 (62.2)	480 (6.6)	287 (4.0)	1,505 (20.7)	NA	NA	44 (0.6)	NA	NA	NA	44 (0.6)	NA	NA	223 (3.1)	204 (2.8)	
2001	4,469 (63.8)	428 (6.1)	253 (3.6)	1,456 (20.8)	NA	NA	26 (0.4)	NA	NA	NA	26 (0.4)	NA	NA	194 (2.8)	174 (2.5)	
2002	4,648 (61.4)	575 (7.6)	303 (4.0)	1,625 (21.5)	NA	NA	47 (0.6)	NA	NA	NA	47 (0.6)	NA	NA	198 (2.6)	177 (2.3)	
2003	4,473 (59.7)	591 (7.9)	310 (4.1)	1,691 (22.6)	NA	NA	38 (0.5)	NA	NA	NA	38 (0.5)	NA	NA	182 (2.4)	203 (2.7)	
2004	4,954 (60.7)	612 (7.5)	295 (3.6)	1,857 (22.8)	NA	NA	32 (0.4)	NA	NA	NA	32 (0.4)	NA	NA	190 (2.3)	218 (2.7)	
2005	5,031 (60.8)	720 (8.7)	361 (4.4)	1,683 (20.4)	NA	NA	52 (0.6)	NA	NA	NA	52 (0.6)	NA	NA	226 (2.7)	195 (2.4)	
2006 ^c	5,650 (62.5)	668 (7.4)	377 (4.2)	1,822 (20.2)	NA	NA	39 (0.4)	NA	NA	NA	39 (0.4)	NA	NA	265 (2.9)	219 (2.4)	
2007	6,182 (63.0)	682 (7.0)	386 (3.9)	1,970 (20.1)	NA	NA	53 (0.5)	NA	NA	NA	53 (0.5)	NA	NA	337 (3.4)	202 (2.1)	
2008	6,560 (62.5)	702 (6.7)	407 (3.9)	2,106 (20.1)	NA	NA	61 (0.6)	NA	NA	NA	61 (0.6)	NA	NA	424 (4.0)	240 (2.3)	
2009	6,660 (60.6)	688 (6.3)	454 (4.1)	2,333 (21.2)	NA	NA	64 (0.6)	NA	NA	NA	64 (0.6)	NA	NA	497 (4.5)	292 (2.7)	
2010	6,880 (59.9)	744 (6.5)	489 (4.3)	2,463 (21.4)	NA	NA	50 (0.4)	NA	NA	NA	50 (0.4)	NA	NA	602 (5.2)	259 (2.3)	
2011	7,136 (59.8)	763 (6.4)	512 (4.3)	2,570 (21.5)	43 (0.4)	43 (0.4)	42 (0.4)	NA	NA	NA	42 (0.4)	NA	37 (0.3)	520 (4.4)	308 (2.6)	
2012	7,396 (58.1)	832 (6.5)	532 (4.2)	2,784 (21.9)	198 (1.6)	198 (1.6)	61 (0.5)	NA	NA	NA	61 (0.5)	NA	98 (0.8)	537 (4.2)	281 (2.2)	
2013	7,479 (56.6)	916 (6.9)	563 (4.3)	3,024 (22.9)	45 (0.3)	45 (0.3)	52 (0.4)	NA	NA	NA	52 (0.4)	NA	91 (0.7)	744 (5.6)	293 (2.2)	
2014	7,564 (54.7)	942 (6.8)	602 (4.4)	3,335 (24.1)	30 (0.2)	30 (0.2)	44 (0.3)	NA	NA	NA	44 (0.3)	NA	174 (1.3)	844 (6.1)	303 (2.2)	
2015	7,653 (54.7)	961 (6.9)	578 (4.1)	3,437 (24.6)	44 (0.3)	44 (0.3)	63 (0.5)	NA	NA	NA	63 (0.5)	NA	248 (1.8)	605 (4.3)	405 (2.9)	
2016	7,746 (53.2)	1,057 (7.3)	643 (4.4)	3,586 (24.6)	32 (0.2)	32 (0.2)	48 (0.3)	NA	NA	NA	48 (0.3)	NA	324 (2.2)	725 (5.0)	395 (2.7)	

^aU.S. citizen or permanent resident^bCitizens of a foreign country/permanent residents of a country other than the U.S.^cIncludes only Pharm.D.1 degrees from 2006 onward

NA: Not available

Table 8. Percentage of Postbaccalaureate Doctor of Pharmacy Degree (Pharm.D.2) Recipients 1980-2016 by Race/Ethnicity

Year	White ^a n (%)	Black or African American ^a n (%)	Hispanic or Latino ^a n (%)	Asian ^a n (%)	Native Hawaiian or Other Pacific Islander ^a n (%)	American Indian or Alaska Native ^a n (%)	Two or More Races ^a n (%)	Unknown ^a n (%)	International/ Foreign ^b n (%)
1980	161(89.4)	4 (2.2)	2 (1.1)	3 (1.7)	NA	0 (0.0)	NA	0 (0.0)	10 (5.6)
1981	171 (81.4)	7 (3.3)	9 (4.3)	5 (2.4)	NA	0 (0.0)	NA	1 (0.5)	17 (8.1)
1982	172 (83.1)	6 (2.9)	3 (1.4)	9 (4.3)	NA	1 (0.5)	NA	0 (0.0)	16 (7.7)
1983	217 (80.1)	23 (8.5)	7 (2.6)	9(3.3)	NA	0 (0.0)	NA	0 (0.0)	15 (5.5)
1984	268 (81.0)	10 (3.0)	5 (1.5)	8 (2.4)	NA	0 (0.0)	NA	4 (1.2)	36 (10.9)
1985	174 (77.7)	13 (5.8)	2 (0.9)	7 (3.1)	NA	1 (0.4)	NA	6 (2.7)	21 (9.4)
1986	154 (73.3)	15 (7.1)	6 (2.9)	6 (2.9)	NA	0 (0.0)	NA	0 (0.0)	29 (13.8)
1987	170 (80.2)	5 (2.4)	7 (3.3)	6 (2.8)	NA	0 (0.0)	NA	4 (1.9)	20 (9.4)
1988	124 (78.0)	5 (3.1)	1 (0.6)	3 (1.9)	NA	0 (0.0)	NA	0 (0.0)	26 (16.4)
1989	171 (77.0)	9 (4.1)	3 (1.4)	14 (6.3)	NA	0 (0.0)	NA	0 (0.0)	25 (11.3)
1990	244 (80.8)	13 (4.3)	10 (3.3)	10 (3.3)	NA	0 (0.0)	NA	4 (1.3)	21 (7.0)
1991	217 (80.1)	11 (4.1)	4 (1.5)	11 (4.1)	NA	0 (0.0)	NA	2 (0.7)	26 (9.6)
1992	232 (81.1)	15 (5.2)	2 (0.7)	6 (2.1)	NA	0 (0.0)	NA	1 (0.3)	30 (10.5)
1993	308 (77.8)	17 (4.3)	9 (2.3)	16 (4.0)	NA	2 (0.5)	NA	6 (1.5)	38 (9.6)
1994	462 (80.3)	26 (4.5)	12 (2.1)	33 (5.7)	NA	0 (0.0)	NA	1 (0.2)	41 (7.1)
1995	573 (81.4)	38 (5.4)	10 (1.4)	47 (6.7)	NA	2 (0.3)	NA	2 (0.3)	32 (4.5)
1996	589 (80.5)	34 (4.6)	11 (1.5)	55 (7.5)	NA	1 (0.1)	NA	6 (0.8)	36 (4.9)
1997	674 (78.5)	59 (6.9)	5 (0.6)	64 (7.5)	NA	3 (0.4)	NA	12 (1.4)	42 (4.9)
1998	786 (77.5)	41 (4.0)	12 (1.2)	125 (12.3)	NA	0 (0.0)	NA	6 (0.6)	44 (4.3)
1999	627 (68.7)	59 (6.5)	35 (3.8)	108 (11.8)	NA	7 (0.8)	NA	53 (5.8)	24 (2.6)
2000	897 (70.7)	67 (5.3)	54 (4.3)	175 (13.8)	NA	10 (0.8)	NA	31 (2.4)	35 (2.8)
2001	690 (70.0)	62 (6.3)	23 (2.3)	153 (15.6)	NA	9 (0.9)	NA	20 (2.0)	22 (2.2)
2002	533 (68.3)	43 (5.5)	29 (3.7)	125 (16.0)	NA	4 (0.5)	NA	31 (4.0)	15 (1.9)
2003	567 (63.4)	57 (6.4)	34 (3.8)	149 (16.6)	NA	4 (0.4)	NA	60 (6.7)	24 (2.7)
2004	472 (62.4)	80 (10.6)	43 (5.7)	89 (11.8)	NA	4 (0.5)	NA	30 (4.0)	38 (5.0)
2005	351 (52.5)	55 (8.2)	53 (7.9)	86 (12.9)	NA	3 (0.4)	NA	84 (12.6)	36 (5.4)
2006	284 (55.1)	42 (8.2)	29 (5.6)	68 (13.2)	NA	0 (0.0)	NA	54 (10.5)	38 (7.4)
2007	187 (39.8)	97 (20.6)	47 (10.0)	72 (15.3)	NA	3 (0.6)	NA	32 (6.8)	32 (6.8)
2008	344 (54.9)	61 (9.7)	22 (3.5)	103 (16.4)	NA	1 (0.2)	NA	36 (5.7)	60 (9.6)
2009	254 (48.1)	46 (8.7)	23 (4.4)	97 (18.4)	NA	2 (0.4)	NA	35 (6.6)	71 (13.4)
2010	193 (36.6)	53 (10.1)	33 (6.3)	91 (17.3)	NA	2 (0.4)	NA	65 (12.3)	90 (17.1)
2011	162 (39.0)	47 (11.3)	32 (7.7)	79 (19.0)	4 (1.0)	1 (0.2)	0 (0.0)	24 (5.8)	66 (15.9)
2012	182 (41.0)	46 (10.4)	26 (5.9)	96 (21.6)	0 (0.0)	0 (0.0)	0 (0.0)	42 (9.5)	52 (11.7)
2013	139 (40.4)	36 (10.5)	14 (4.1)	66 (19.2)	0 (0.0)	0 (0.0)	0 (0.0)	21 (6.1)	68 (19.8)
2014	121 (35.7)	52 (15.3)	17 (5.0)	79 (23.3)	0 (0.0)	2 (0.6)	1 (0.3)	33 (9.7)	34 (10.0)
2015	86 (31.5)	29 (10.6)	9 (3.3)	50 (18.3)	0 (0.0)	1 (0.4)	0 (0.0)	49 (17.9)	49 (17.9)
2016	93 (28.5)	58 (17.8)	8 (2.5)	63 (19.3)	3 (0.9)	1 (0.3)	0 (0.0)	49 (15.0)	51 (15.6)

^aU.S. citizen or permanent resident

^bCitizens of a foreign country/permanent residents of a country other than the U.S

NA: Not available

Other Pacific Islander, 0.0%; American Indian or Alaska Native, 0.2%), a slight increase from 5.7% in 2014-15. Asian Americans earned 9.1% of the Ph.D. degrees awarded. The percentage of Ph.D. degree recipients who were of two or more races was 0.9% and the percentage of degree recipients that were foreign, nonpermanent residents of the U.S. was 48.6%, up from 45.6% in 2014-15 [Table 12].

FALL 2016 ENROLLMENTS

The 2016 Undergraduate and Professional Pharmacy Degree Enrollment Survey and Graduate Degree Enrollment Survey were conducted online in October 2016, with an announcement and request for participation sent to the survey coordinator at each of the 138 colleges and schools of pharmacy in the U.S. recognized by ACPE.

Table 9. Summary of Master of Science and Doctor of Philosophy Degrees Conferred 2015-16 by Gender and Discipline

Discipline	M.S. Degree				Ph.D. Degree			
	M	F	Total	Percent of M.S. Degrees Conferred	M	F	Total	Percent of Ph.D. Degree Conferred
Medicinal chemistry	73	130	203	19.8	62	40	102	18.6
Pharmacology	53	70	123	12.0	66	57	123	22.5
Social and administrative sciences	100	176	276	27.0	26	31	57	10.4
Pharmacy practice	52	80	132	12.9	7	16	23	4.2
Pharmaceutics	120	134	254	24.8	106	95	201	36.7
Other ^a	13	22	35	3.4	30	11	41	7.5
Total	411	612	1,023		297	250	547	

^aIncludes biophysics/biological & medical informatics, immunology, clinical pharmaceutical sciences, pharmaceutical & biomedical sciences, pharmacometric, and biomedical nanotechnology in M.S. programs and bioengineering/biophysics/biological & medical informatics, clinical pharmaceutical sciences, pharmaceutical & biomedical science, biomolecular science, and translational science in Ph.D. programs

Submission of the data was requested by December 2016. After follow-up correspondence, 137 colleges and schools (99.3%) submitted the requested information.

Professional Degree Programs

Fall 2016 enrollments in Pharm.D. as the first professional degree programs (n= 63,464) represented a 0.0% increase from enrollments in fall 2015 (n= 63,460) [Table 13]. In fall 2016, 61.9% of the students enrolled in the Pharm.D. as the first professional degree programs were females and 38.1% were males [Table 14].

White Americans comprised the majority (50.5%) of students enrolled in the Pharm.D. as the first professional degree programs. Asian Americans accounted for 25.0%; Black or African Americans, 8.4%; Hispanic or Latino, 5.3%; Native Hawaiians/Other Pacific Islanders, 0.4%; American Indians/Alaska Natives, 0.3%; and international/foreign students, 3.1%. Students that identified as two or more races accounted for 2.4 % of all first professional degree enrollments. Students where race/ethnicity was unknown accounted for 4.6 % of enrollees. Enrollments of underrepresented minorities (Black or African American, Hispanic or Latino, Native Hawaiian or Other Pacific Islander, American Indian or Alaska Native) as a percentage of total enrollments in the Pharm.D. as a first professional degree programs increased to 14.4% in fall 2016 from 13.6% in fall 2015 [Table 15].

Eight colleges and schools reported 840 students who already held a baccalaureate in pharmacy enrolled in doctor of pharmacy degree programs (Pharm.D.2). This was a decrease of 10.3% from fall 2015. Underrepresented minorities accounted for 24.4% of these students (Black or African American, 20.5%; Hispanic, 3.6%; Native Hawaiians/Other Pacific Islander, 0.0%; American Indians/Alaska Native, 0.4%). White Americans comprised 29.4%; Asian Americans, 23.2%; students of two

or more races, 1.0%; unknown, 11.0%; and international/foreign students, 11.1%.

Graduate Degree Programs

In fall 2016, the discipline of pharmaceutics had the highest percentage of full-time enrollees at both the M.S. and Ph.D. levels (36.3% and 36.6%, respectively). At the master's level, 20.9% of the students were enrolled in social and administrative sciences programs; 14.0% in pharmacology programs; 11.9% in other disciplines; 10.6% in pharmacy practice programs; and 6.4% in medicinal chemistry programs. At the doctoral level, 22.2% of the students were enrolled in medicinal chemistry programs; 17.2% in pharmacology programs; 10.8% in social and administrative science programs; 8.7% in other disciplines; and 4.4% in pharmacy practice [Table 16].

In fall 2016, more females than males were enrolled full-time in M.S. degree programs (females, 60.7%; males, 39.3%). Women accounted for 48.1% of the students enrolled full-time in Ph.D. programs in 2016, an increase from 47.1% in 2015. Of the 1,241 students enrolled full-time in M.S. degree programs in fall 2016, the majority (55.4%) were foreign students. White Americans comprised 25.3% of enrollees and Asian Americans accounted for 7.4%. Underrepresented minorities accounted for 7.6% of M.S. enrollees (Black or African American, 4.0%; Hispanic or Latino, 3.3%; Native Hawaiian or Other Pacific Islander, 0.2%; American Indian or Alaska Native, 0.1%). Americans of two or more races made up 2.3% of enrollees and 1.9% of all full-time M.S. degree enrollees were reported as race/ethnicity unknown.

Of the 3,350 students enrolled full-time in Ph.D. degree programs in fall 2016, foreign students were also the largest group, accounting for 53.4% of the enrollees. White Americans were the next largest group at 29.8% of full time enrollments, followed by Asian Americans

Table 10. Number of Doctor of Philosophy Degrees (Ph.D.) Conferred 1980-2016 by Gender and Race/Ethnicity

Year	Black or												Native Hawaiian or												Two or More												International/ Foreign ^b												Total											
	White ^a						Hispanic or Latino ^a						Asian ^a						Other Pacific Islander ^a						American Indian or Alaska Native ^a						Races ^a						Unknown ^a						Foreign ^b						Total											
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T												
1980	96	16	112	3	0	3	1	0	1	0	1	10	2	12	NA	NA	NA	NA	NA	NA	0	0	0	NA	NA	NA	2	1	3	43	15	58	155	34	189																									
1981	112	21	133	1	0	1	1	0	1	0	1	6	2	8	NA	NA	NA	NA	NA	NA	0	0	0	NA	NA	NA	0	0	0	32	5	37	152	28	180																									
1982	105	21	126	1	0	1	1	0	1	0	1	2	1	3	NA	NA	NA	NA	NA	NA	0	0	0	NA	NA	NA	1	0	1	36	14	50	146	36	182																									
1983	104	28	132	0	0	1	0	1	0	1	6	3	9	NA	NA	NA	NA	NA	NA	0	0	0	NA	NA	NA	3	1	4	40	22	62	154	54	208																										
1984	105	30	135	2	0	2	5	2	7	11	2	13	NA	NA	NA	NA	NA	NA	0	0	0	NA	NA	NA	6	0	6	45	19	64	174	53	227																											
1985	106	34	140	2	0	2	1	1	2	6	4	10	NA	NA	NA	NA	NA	NA	1	0	1	NA	NA	NA	0	0	0	59	18	77	175	57	232																											
1986	112	48	160	2	0	2	1	0	1	0	1	4	2	6	NA	NA	NA	NA	NA	0	0	0	NA	NA	NA	0	0	0	73	18	91	192	68	260																										
1987	119	43	162	2	0	2	4	0	4	7	6	13	NA	NA	NA	NA	NA	NA	0	0	0	NA	NA	NA	7	1	8	64	30	94	203	80	283																											
1988	97	48	145	1	1	2	3	0	3	4	2	6	NA	NA	NA	NA	NA	NA	0	0	0	NA	NA	NA	1	1	2	82	23	105	188	75	263																											
1989	100	54	154	1	3	4	2	2	4	6	4	10	NA	NA	NA	NA	NA	NA	0	0	0	NA	NA	NA	3	3	6	63	46	109	175	112	287																											
1990	100	51	151	4	3	7	1	0	1	17	7	24	NA	NA	NA	NA	NA	NA	0	0	0	NA	NA	NA	6	2	8	53	29	82	181	92	273																											
1991	104	64	168	5	3	8	3	0	3	12	14	26	NA	NA	NA	NA	NA	NA	0	0	0	NA	NA	NA	5	0	5	72	31	103	201	112	313																											
1992	78	60	138	5	3	8	3	1	4	12	9	21	NA	NA	NA	NA	NA	NA	0	0	0	NA	NA	NA	3	1	4	94	48	142	195	122	317																											
1993	110	50	160	1	4	5	2	1	3	10	10	20	NA	NA	NA	NA	NA	NA	1	0	1	NA	NA	NA	0	0	0	99	60	159	223	125	348																											
1994	95	56	151	2	4	6	2	2	4	16	9	25	NA	NA	NA	NA	NA	NA	0	0	0	NA	NA	NA	2	0	2	82	51	133	198	122	320																											
1995	95	53	148	5	5	10	1	4	5	20	13	33	NA	NA	NA	NA	NA	NA	1	1	2	NA	NA	NA	3	1	4	93	55	148	218	132	350																											
1996	83	52	135	3	6	9	1	4	5	11	12	23	NA	NA	NA	NA	NA	NA	0	0	0	NA	NA	NA	2	1	3	86	43	129	186	118	304																											
1997	87	58	145	6	4	10	1	2	3	12	13	25	NA	NA	NA	NA	NA	NA	0	0	0	NA	NA	NA	7	0	7	105	63	168	218	140	358																											
1998	101	65	166	4	10	14	5	1	6	14	18	32	NA	NA	NA	NA	NA	NA	2	0	2	NA	NA	NA	1	3	4	111	76	187	238	173	411																											
1999	82	49	131	6	7	13	4	2	6	22	17	39	NA	NA	NA	NA	NA	NA	0	0	0	NA	NA	NA	12	3	15	95	60	155	221	138	359																											
2000	61	62	123	5	6	11	0	0	0	23	15	38	NA	NA	NA	NA	NA	NA	0	0	0	NA	NA	NA	6	14	20	79	52	131	174	149	323																											
2001	83	46	129	5	10	15	4	2	6	27	27	54	NA	NA	NA	NA	NA	NA	0	0	0	NA	NA	NA	3	1	4	89	78	167	211	164	375																											
2002	92	59	151	2	6	8	2	3	5	14	13	27	NA	NA	NA	NA	NA	NA	2	0	2	NA	NA	NA	3	4	7	101	75	176	216	160	376																											
2003	77	62	139	5	8	13	7	2	9	19	13	32	NA	NA	NA	NA	NA	NA	0	0	0	NA	NA	NA	4	1	5	98	88	186	210	174	384																											
2004	67	47	114	6	5	11	2	3	5	15	16	31	NA	NA	NA	NA	NA	NA	0	0	0	NA	NA	NA	3	1	4	83	87	170	176	159	335																											
2005	66	43	109	10	9	19	5	3	8	10	25	35	NA	NA	NA	NA	NA	NA	1	1	2	NA	NA	NA	3	3	6	120	130	250	215	214	429																											
2006	82	45	127	5	12	17	5	3	8	19	15	34	NA	NA	NA	NA	NA	NA	0	0	0	NA	NA	NA	2	0	2	139	115	254	252	190	442																											
2007	78	50	128	5	11	16	4	4	8	19	16	35	NA	NA	NA	NA	NA	NA	0	0	0	NA	NA	NA	1	4	5	113	107	220	220	192	412																											
2008	104	60	164	4	7	11	4	5	9	27	19	46	NA	NA	NA	NA	NA	NA	0	2	2	NA	NA	NA	7	8	15	116	105	221	262	206	468																											
2009	80	71	151	7	11	18	3	7	10	31	23	54	NA	NA	NA	NA	NA	NA	0	0	0	NA	NA	NA	7	7	14	100	111	211	228	230	458																											
2010	81	81	162	3	10	13	2	6	8	25	23	48	NA	NA	NA	NA	NA	NA	0	1	1	NA	NA	NA	11	7	18	121	79	200	243	207	450																											
2011	74	67	141	11	23	34	7	2	9	28	22	50	2	2	4	0	0	0	0	0	0	3	2	5	5	11	16	120	92	212	250	221	471																											
2012	82	66	148	11	14	25	7	11	18	34	27	61	1	0	1	1	1	1	2	2	0	2	0	2	21	9	30	116	94	210	275	222	497																											
2013	83	74	157	8	14	22	9	11	20	31	37	68	0	0	0	1	0	1	0	1	4	5	9	10	10	20	147	145	292	293	296	589																												
2014	103	73	176	11	14	25	4	6	10	26	33	59	0	2	2	0	1	1	1	1	2	1	3	8	7	15	144	130	274	298	267	565																												
2015	101	70	171	6	12	18	10	3	13	46	44	90	0	0	0	0	0	1	1	1	0	2	2	7	3	10	142	114	256	312	249	561																												
2016	97	82	179	7	9	16	7	8	15	21	29	50	0	0	0	0	0	1	1	1	3	2	5	10	5	15	152	114	266	297	250	547																												

^aU.S. citizen or permanent resident

^bCitizens of a foreign country/permanent residents of a country other than the U.S

NA: Not available

Table 11. Percentage of Master of Science (M.S.) Degree Recipients 1990-2016 by Race/Ethnicity

Year	White ^a n (%)	Black or African American ^a n (%)	Hispanic or Latino ^a n (%)	Asian ^a n (%)	Native Hawaiian or Other Pacific Islander ^a n (%)	American	Two or More Races ^a n (%)	Unknown ^a n (%)	International/ Foreign ^b n (%)
						Indian or Alaska Native ^a n (%)			
1980	299 (64.3)	10 (2.2)	3 (0.6)	27 (5.8)	NA	0 (0.0)	NA	41 (8.8)	85 (18.3)
1981	305 (70.3)	17 (3.9)	2 (0.5)	14 (3.2)	NA	0 (0.0)	NA	1 (0.2)	95 (21.9)
1982	282 (61.6)	5 (1.1)	6 (1.3)	6 (1.3)	NA	1 (0.2)	NA	27 (5.9)	131 (28.6)
1983	282 (66.2)	2 (0.5)	4 (0.9)	10 (2.3)	NA	0 (0.0)	NA	40 (9.4)	88 (20.7)
1984	254 (64.5)	8 (2.0)	4 (1.0)	16 (4.1)	NA	0 (0.0)	NA	21 (5.3)	91 (23.1)
1985	215 (63.6)	10 (3.0)	3 (0.9)	11 (3.3)	NA	0 (0.0)	NA	1 (0.3)	98 (29.0)
1986	282 (68.0)	6 (1.4)	8 (1.9)	7 (1.7)	NA	1 (0.2)	NA	0 (0.0)	111 (26.7)
1987	231 (66.4)	6 (1.7)	4 (1.1)	11 (3.2)	NA	0 (0.0)	NA	14 (4.0)	82 (23.6)
1988	227 (64.3)	12 (3.4)	4 (1.1)	9 (2.5)	NA	2 (0.6)	NA	2 (0.6)	97 (27.5)
1989	234 (59.8)	8 (2.0)	7 (1.8)	16 (4.1)	NA	0 (0.0)	NA	2 (0.5)	124 (31.7)
1990	209 (54.3)	12 (3.1)	11 (2.9)	28 (7.3)	NA	1 (0.3)	NA	8 (2.1)	116 (30.1)
1991	218 (59.9)	13 (3.6)	7 (1.9)	27 (7.4)	NA	0 (0.0)	NA	2 (0.5)	97 (26.6)
1992	140 (49.6)	14 (5.0)	9 (3.2)	14 (5.0)	NA	0 (0.0)	NA	5 (1.8)	100 (35.5)
1993	149 (49.5)	9 (3.0)	20 (6.6)	13 (4.3)	NA	0 (0.0)	NA	5 (1.7)	105 (34.9)
1994	169 (47.6)	8 (2.3)	13 (3.7)	19 (5.4)	NA	0 (0.0)	NA	5 (1.4)	141 (39.7)
1995	206 (52.6)	16 (4.1)	16 (4.1)	32 (8.2)	NA	0 (0.0)	NA	1 (0.3)	121 (30.9)
1996	236 (55.9)	12 (2.8)	16 (3.8)	23 (5.5)	NA	0 (0.0)	NA	8 (1.9)	127 (30.1)
1997	194 (48.5)	18 (4.5)	17 (4.3)	36 (9.0)	NA	0 (0.0)	NA	5 (1.3)	130 (32.5)
1998	213 (50.6)	14 (3.3)	19 (4.5)	38 (9.0)	NA	1 (0.2)	NA	13 (3.1)	123 (29.2)
1999	173 (45.1)	20 (5.2)	8 (2.1)	31 (8.1)	NA	0 (0.0)	NA	19 (4.9)	133 (34.6)
2000	172 (48.6)	13 (3.7)	13 (3.7)	36 (10.2)	NA	1 (0.3)	NA	2 (0.6)	117 (33.1)
2001	214 (46.4)	26 (5.6)	18 (3.9)	46 (10.0)	NA	1 (0.2)	NA	12 (2.6)	144 (31.2)
2002	181 (40.9)	17 (3.8)	16 (3.6)	43 (9.7)	NA	0 (0.0)	NA	15 (3.4)	171 (38.6)
2003	206 (43.6)	35 (7.4)	11 (2.3)	68 (14.4)	NA	0 (0.0)	NA	16 (3.4)	136 (28.8)
2004	280 (43.0)	51 (7.8)	26 (4.0)	89 (13.7)	NA	1 (0.2)	NA	39 (6.0)	165 (25.3)
2005	270 (43.1)	42 (6.7)	19 (3.0)	80 (12.8)	NA	2 (0.3)	NA	69 (11.0)	144 (23.0)
2006	274 (42.5)	52 (8.1)	28 (4.3)	49 (7.6)	NA	2 (0.3)	NA	57 (8.9)	182 (28.3)
2007	278 (46.0)	49 (8.1)	12 (2.0)	84 (13.9)	NA	2 (0.3)	NA	51 (8.4)	128 (21.2)
2008	318 (43.4)	35 (4.8)	33 (4.5)	75 (10.2)	NA	1 (0.1)	NA	64 (8.7)	206 (28.1)
2009	186 (24.3)	30 (3.9)	11 (1.4)	85 (11.1)	NA	0 (0.0)	NA	75 (9.8)	380 (49.5)
2010	222 (28.7)	22 (2.8)	22 (2.8)	78 (10.1)	NA	1 (0.1)	NA	73 (9.4)	355 (45.9)
2011	235 (28.6)	38 (4.6)	16 (1.9)	78 (9.5)	2 (0.2)	2 (0.2)	1 (0.1)	66 (8.0)	384 (46.7)
2012	217 (31.9)	24 (3.5)	15 (2.2)	81 (11.9)	1 (0.1)	4 (0.6)	3 (0.4)	27 (4.0)	309 (45.4)
2013	183 (27.9)	24 (3.7)	15 (2.3)	72 (11.0)	1 (0.2)	3 (0.5)	7 (1.1)	31 (4.7)	319 (48.7)
2014	204 (26.3)	38 (4.9)	15 (1.9)	75 (9.7)	3 (0.4)	0 (0.0)	5 (0.6)	49 (6.3)	386 (49.8)
2015	207 (28.8)	28 (3.9)	20 (2.8)	84 (11.7)	0 (0.0)	0 (0.0)	8 (1.1)	22 (3.1)	351 (48.8)
2016	369 (36.1)	68 (6.6)	51 (5.0)	109 (10.7)	4 (0.4)	3 (0.3)	16 (1.6)	42 (4.1)	361 (35.3)

^aU.S citizen or permanent resident

^bCitizen of a foreign country/permanent residents of a country other than the U.S

NA: Not available

6.7%. Underrepresented minorities accounted for 7.2% of Ph.D. enrollees (Black or African American, 3.9%; Hispanic or Latino, 2.9%; Native Hawaiian or Other Pacific Islander, 0.1%; American Indian or Alaska Native, 0.3%). Americans of two or more races accounted for 1.1% and 1.7% of all full-time Ph.D. degree enrollees were reported

as unknown. Over 40% (40.5) of full-time and part-time students in Ph.D. programs held a professional pharmacy degree, 9.7% of Ph.D. students held a professional pharmacy degree from a U.S. college or school of pharmacy and 30.9% held a pharmacy degree conferred by a non-U.S. institution [Table 17].

Table 12. Percentage of Doctor of Philosophy Degree (Ph.D.) Recipients 1980-2016 by Race/Ethnicity

Year	White ^a n (%)	Black or African American ^a n (%)	Hispanic or Latino ^a n (%)	Asian ^a n (%)	Native Hawaiian or Other Pacific Islander ^a n (%)	American Indian or Alaska Native ^a n (%)	Two or More Races ^a n (%)	Unknown ^a n (%)	International/ Foreign ^b n (%)
1980	112 (59.3)	3 (1.6)	1 (0.5)	12 (6.3)	NA	0 (0.0)	NA	3 (1.6)	58 (30.7)
1981	133 (73.9)	1 (0.6)	1 (0.6)	8 (4.4)	NA	0 (0.0)	NA	0 (0.0)	37 (20.6)
1982	126 (69.2)	1 (0.5)	1 (0.5)	3 (1.6)	NA	0 (0.0)	NA	1 (0.5)	50 (27.5)
1983	132 (63.5)	0 (0.0)	1 (0.5)	9 (4.3)	NA	0 (0.0)	NA	4 (1.9)	62 (29.8)
1984	135 (59.5)	2 (0.9)	7 (3.1)	13 (5.7)	NA	0 (0.0)	NA	6 (2.6)	64 (28.2)
1985	140 (60.3)	2 (0.9)	2 (0.9)	10 (4.3)	NA	1 (0.4)	NA	0 (0.0)	77 (33.2)
1986	160 (61.5)	2 (0.8)	1 (0.4)	6 (2.3)	NA	0 (0.0)	NA	0 (0.0)	91 (35.0)
1987	162 (57.2)	2 (0.7)	4 (1.4)	13 (4.6)	NA	0 (0.0)	NA	8 (2.8)	94 (33.2)
1988	145 (55.1)	2 (0.8)	3 (1.1)	6 (2.3)	NA	0 (0.0)	NA	2 (0.8)	105 (39.9)
1989	154 (53.7)	4 (1.4)	4 (1.4)	10 (3.5)	NA	0 (0.0)	NA	6 (2.1)	109 (38.0)
1990	151 (55.3)	7 (2.6)	1 (0.4)	24 (8.8)	NA	0 (0.0)	NA	8 (2.9)	82 (30.0)
1991	168 (53.7)	8 (2.6)	3 (1.0)	26 (8.3)	NA	0 (0.0)	NA	5 (1.6)	103 (32.9)
1992	138 (43.5)	8 (2.5)	4 (1.3)	21 (6.6)	NA	0 (0.0)	NA	4 (1.3)	142 (44.8)
1993	160 (46.0)	5 (1.4)	3 (0.9)	20 (5.7)	NA	1 (0.3)	NA	0 (0.0)	159 (45.7)
1994	150 (46.9)	6 (1.9)	4 (1.3)	25 (7.8)	NA	0 (0.0)	NA	2 (0.6)	133 (41.6)
1995	148 (42.3)	10 (2.9)	5 (1.4)	33 (9.4)	NA	2 (0.6)	NA	4 (1.1)	148 (42.3)
1996	135 (44.4)	9 (3.0)	5 (1.6)	23 (7.6)	NA	0 (0.0)	NA	3 (1.0)	129 (42.4)
1997	145 (40.5)	10 (2.8)	3 (0.8)	25 (7.0)	NA	0 (0.0)	NA	7 (2.0)	168 (46.9)
1998	166 (40.4)	14 (3.4)	6 (1.5)	32 (7.8)	NA	2 (0.5)	NA	4 (1.0)	187 (45.5)
1999	131 (36.5)	13 (3.6)	6 (1.7)	39 (10.9)	NA	0 (0.0)	NA	15 (4.2)	155 (43.2)
2000	123 (38.1)	11 (3.4)	0 (0.0)	38 (11.8)	NA	0 (0.0)	NA	20 (6.2)	131 (40.6)
2001	129 (34.4)	15 (4.0)	6 (1.6)	54 (14.4)	NA	0 (0.0)	NA	4 (1.1)	167 (44.5)
2002	151 (40.2)	8 (2.1)	5 (1.3)	27 (7.2)	NA	2 (0.5)	NA	7 (1.9)	176 (46.8)
2003	139 (36.2)	13 (3.4)	9 (2.3)	32 (8.3)	NA	0 (0.0)	NA	5 (1.3)	186 (48.4)
2004	114 (34.0)	11 (3.3)	5 (1.5)	31 (9.3)	NA	0 (0.0)	NA	4 (1.2)	170 (50.7)
2005	109 (25.4)	19 (4.4)	8 (1.9)	35 (8.2)	NA	2 (0.5)	NA	6 (1.4)	250 (58.3)
2006	127 (28.7)	17 (3.8)	8 (1.8)	34 (7.7)	NA	0 (0.0)	NA	2 (0.5)	254 (57.5)
2007	128 (31.1)	16 (3.9)	8 (1.9)	35 (8.5)	NA	0 (0.0)	NA	5 (1.2)	220 (53.4)
2008	164 (35.0)	11 (2.4)	9 (1.9)	46 (9.8)	NA	2 (0.4)	NA	15 (3.2)	221 (47.2)
2009	151 (33.0)	18 (3.9)	10 (2.2)	54 (11.8)	NA	0 (0.0)	NA	14 (3.1)	211 (46.1)
2010	162 (36.0)	13 (2.9)	8 (1.8)	48 (10.7)	NA	1 (0.2)	NA	18 (4.0)	200 (44.4)
2011	141 (29.9)	34 (7.2)	9 (1.9)	50 (10.6)	4 (0.8)	0 (0.0)	5 (1.1)	16 (3.4)	212 (45.0)
2012	148 (29.8)	25 (5.0)	18 (3.6)	61 (12.3)	1 (0.2)	2 (0.4)	2 (0.4)	30 (6.0)	210 (42.3)
2013	157 (26.7)	22 (3.7)	20 (3.4)	68 (11.5)	0 (0.0)	1 (0.2)	9 (1.5)	20 (3.4)	292 (49.6)
2014	176 (31.2)	25 (4.4)	10 (1.8)	59 (10.4)	2 (0.4)	1 (0.2)	3 (0.5)	15 (2.7)	274 (48.5)
2015	171 (30.5)	18 (3.2)	13 (2.3)	90 (16.0)	0 (0.0)	1 (0.2)	2 (0.4)	10 (1.8)	256 (45.6)
2016	179 (32.7)	16 (2.9)	15 (2.7)	50 (9.1)	0 (0.0)	1 (0.2)	5 (0.9)	15 (2.7)	266 (48.6)

^aU.S. citizen or permanent resident

^bNonpermanent resident/citizen of a country other than the United States

Table 13. Summary of Enrollments in First Professional Degree Programs 1980-2016

Year	First Professional Year Classes ^a	All Professional Years ^b	Total Enrollment
	No. (% Change)	No. (% Change)	No. (% Change)
1980	7,377	22,093	26,617
1981	6,927 (-6.1)	20,468 (-7.4)	24,658 (-7.4)
1982	6,609 (-4.6)	19,350 (-5.5)	23,410 (-5.1)
1983	6,635 (0.4)	18,831 (-2.7)	23,091 (-1.4)
1984	6,986 (5.3)	18,646 (-1.0)	23,312 (1.0)
1985	7,091 (1.5)	19,098 (2.4)	24,820 (6.5)
1986	7,554 (6.5)	20,073 (5.1)	25,643 (3.3)
1987	7,751 (2.6)	21,424 (6.7)	27,292 (6.4)
1988	7,990 (3.1)	22,447 (4.8)	28,891 (5.9)
1989	8,033 (0.5)	23,013 (2.5)	29,560 (2.3)
1990	8,267 (2.9)	23,238 (1.0)	29,797 (0.8)
1991	8,343 (0.9)	23,482 (1.1)	30,314 (1.7)
1992	8,664 (3.8)	26,287 (NA)	31,519 (4.0)
1993	8,970 (3.5)	27,143 (3.3)	32,938 (4.5)
1994	9,157 (2.1)	27,667 (1.9)	33,353 (1.3)
1995	8,740 (-4.6)	28,060 (1.4)	33,415 (0.2)
1996	9,561 (9.4)	28,027 (-0.1)	33,059 (-1.1)
1997	8,571 (-10.4)	28,345 (1.1)	32,529 (-1.6)
1998	8,346 (-2.6)	28,568 (0.8)	33,090 (1.7)
1999	8,123 (-2.7)	29,586 (3.6)	32,537 (-1.7)
2000	8,382 (3.2)	30,301 (2.4)	34,481 (6.0)
2001	8,922 (6.4)	31,769 (4.8)	35,885 (4.1)
2002	9,128 (2.3)	33,437 (5.3)	38,902 (8.4)
2003	9,909 (8.6)	36,454 (9.0)	41,762 (10.7)
2004	10,437 (5.3)	38,544 (5.7)	43,908 (— ^c)
2005	10,506 (0.7)	41,165 (6.8)	46,527 (6.0)
2006	10,992 (4.6)	43,106 (4.7)	48,592 (4.4)
2007	11,533 (4.9)	45,594 (5.8)	50,691 (4.3)
2008	12,379 (7.1)	47,986 (5.2)	52,685 (3.9)
2009	12,705 (2.6)	49,964 (4.1)	54,710 (3.8)
2010	13,077 (2.9)	51,920 (3.9)	56,841 (3.9)
2011	13,464 (3.0)	54,054 (4.1)	58,915 (3.6)
2012	14,011 (4.1)	56,489 (4.5)	61,275 (4.0)
2013	14,008 (0.0)	58,121 (2.9)	62,743 (2.4)
2014	14,276 (1.9)	59,370 (2.1)	63,927 (1.9)
2015	14,190 (-0.6)	59,720 (0.6)	63,460 (-0.7)
2016	13,975 (-1.5)	59,978 (0.4)	63,464 (0.0)

^aIncludes second from last year for baccalaureate and third from last year for Pharm.D.1 and does not include first year enrollees in accelerated programs from 1980-2005. Includes third from last year Pharm.D.1 beginning in 2006

^bIncludes the final three years only of all first professional degree programs for 1980-1991; includes all professional years for 1992-present (3 years for baccalaureate and 4 years for Pharm.D.)

^cNot able to calculate percent change due to change in how data are reported by select institutions

Table 14. Summary of Enrollments in First Professional Degree Programs by Gender 1980-2016

Year	Male		Female		Total Enrollment	
	No. (%)	% Change from Previous Year	No. (%)	% Change from Previous Year	No.	% Change from Previous Year
1980	13,992 (52.6)		12,625 (47.4)		26,617	
1981	12,413 (50.3)	-11.3	12,245 (49.7)	-3.0	24,658	-7.4
1982	11,271 (48.1)	-9.2	12,139 (51.9)	-0.9	23,410	-5.1
1983	10,984 (47.6)	-2.5	12,107 (52.4)	-0.3	23,091	-1.4
1984	10,345 (44.4)	-5.8	12,967 (55.6)	7.1	23,312	1.0
1985	10,685 (43.0)	3.3	14,135 (57.0)	9.0	24,820	6.5
1986	10,628 (41.4)	-0.5	15,015 (58.6)	6.2	25,643	3.3
1987	10,907 (40.0)	2.6	16,385 (60.0)	9.1	27,292	6.4
1988	11,382 (39.4)	4.4	17,509 (60.6)	6.9	28,891	5.9
1989	11,350 (38.4)	-0.3	18,210 (61.6)	4.0	29,560	2.3
1990	11,198 (37.6)	-1.3	18,599 (62.4)	2.1	29,797	0.8
1991	11,219 (37.0)	0.2	19,095 (63.0)	2.7	30,314	1.7
1992	11,543 (36.6)	2.9	19,976 (63.4)	4.6	31,519	4.0
1993	12,117 (36.8)	5.0	20,821 (63.2)	4.2	32,938	4.5
1994	12,243 (36.7)	1.0	21,110 (63.3)	1.4	33,353	1.3
1995	12,221 (36.6)	-0.2	21,194 (63.4)	0.4	33,415	0.2
1996	11,966 (36.2)	-2.1	21,093 (63.8)	-0.5	33,059	-1.1
1997	11,652 (35.8)	-2.6	20,877 (64.2)	-1.0	32,529	-1.6
1998	11,777 (35.6)	1.1	21,313 (64.4)	2.1	33,090	1.7
1999	11,411 (35.1)	-3.1	21,126 (64.9)	-0.9	32,537	-1.7
2000	11,763 (34.1)	3.1	22,718 (65.9)	7.5	34,481	6.0
2001	12,253 (34.1)	4.2	23,632 (65.9)	4.0	35,885	4.1
2002	12,815 (33.0)	4.6	26,087 (67.0)	9.1	38902	8.4
2003	13,874 (33.2)	11.3	27,888 (66.8)	10.3	41,762	10.7
2004 ^a	14,696 (33.5)	—	29,212 (66.5)	—	43,908	—
2005	16,069 (34.5)	9.3	30,458 (65.5)	4.3	46,527	6.0
2006 ^b	17,397 (35.8)	8.3	31,195 (64.2)	2.4	48,592	4.4
2007	18,735 (37.0)	7.7	31,956 (63.0)	2.4	50,691	4.3
2008	19,896 (37.8)	6.2	32,744 (62.2)	2.5	52,685	3.9
2009	21,158 (38.7)	6.3	33,552 (61.3)	2.5	54,710	3.8
2010	22,194 (39.0)	4.9	34,647 (61.0)	3.3	56,841	3.9
2011	23,100 (39.2)	4.1	35,815 (60.8)	3.4	58,915	3.6
2012	23,900 (39.0)	3.5	37,375 (61.0)	4.4	61,275	4.0
2013	24,326 (38.8)	1.8	38,417 (61.2)	2.8	62,743	2.4
2014	24,655 (38.6)	1.4	39,272 (61.4)	2.2	63,927	1.9
2015	24,476 (38.6)	-0.7	38,984 (61.4)	-0.7	63,460	-0.7
2016	24,174 (38.1)	-1.2	39,278 (61.9)	0.8	63,464	0.0

^aNot able to calculate percent change due to change in how data is reported by select institutions

^bIncludes only Pharm.D.1 degrees beginning in 2006

Table 15. Summary of Enrollments in First Professional Degree Programs by Race/Ethnicity 1980-2016

Year	Black or African American ^a	Hispanic or Latino ^a	% Change From Previous Year	Asian ^a	% Change From Previous Year	Native Hawaiian or Other Pacific Islander ^a	% Change From Previous Year	American Indian or Alaska Native ^a	% Change From Previous Year	Two or More Races ^a	% Change From Previous Year
1980 ^b	945	934		1,035		NA		36		NA	
1981 ^b	932	787	-15.7	1,040	0.5	NA	NA	38	5.6	NA	NA
1982 ^b	935	784	-0.4	1,072	3.1	NA	NA	36	-5.6	NA	NA
1983 ^b	1,019	787	0.4	922	-14.0	NA	NA	42	16.7	NA	NA
1984 ^b	1,098	763	-3.0	1,086	17.8	NA	NA	37	-11.9	NA	NA
1985	1,664	927	NA	1,410	NA	NA	NA	42	NA	NA	NA
1986	1,647	1,018	9.8	1,740	23.4	NA	NA	39	-7.1	NA	NA
1987	1,729	1,055	3.6	2,000	14.9	NA	NA	45	15.4	NA	NA
1988	1,891	1,089	3.2	2,362	18.1	NA	NA	78	73.3	NA	NA
1989	1,983	1,096	0.6	2,706	14.6	NA	NA	81	3.8	NA	NA
1990	2,103	1,118	2.0	3,346	23.7	NA	NA	85	4.9	NA	NA
1991	2,395	1,055	-5.6	3,540	5.8	NA	NA	98	15.3	NA	NA
1992	2,340	1,088	3.1	4,135	16.8	NA	NA	96	-2.0	NA	NA
1993	2,380	1,143	5.1	4,731	14.4	NA	NA	128	33.3	NA	NA
1994	2,582	1,171	2.4	5,408	14.3	NA	NA	128	0.0	NA	NA
1995	2,548	1,150	-1.8	5,695	5.3	NA	NA	151	18.0	NA	NA
1996	2,529	1,140	-0.9	6,152	8.0	NA	NA	147	-2.6	NA	NA
1997	2,632	1,130	-0.9	6,451	4.9	NA	NA	150	2.0	NA	NA
1998	2,757	1,157	2.4	6,741	4.5	NA	NA	160	6.7	NA	NA
1999	2,697	1,086	-6.1	6,414	-4.9	NA	NA	156	-2.5	NA	NA
2000	3,132	1,255	15.6	7,392	15.2	NA	NA	137	-12.2	NA	NA
2001	3,407	1,322	5.3	7,405	0.2	NA	NA	179	30.7	NA	NA
2002	3,826	1,466	10.9	8,263	11.6	NA	NA	168	-6.1	NA	NA
2003	4,183	1,605	9.5	8,991	8.8	NA	NA	191	13.7	NA	NA
2004 ^c	3,784	1,691	—	9,103	—	NA	NA	210	—	NA	NA
2005	3,703	1,778	5.1	9,690	6.1	NA	NA	234	11.4	NA	NA
2006 ^d	3,275	1,888	6.2	10,312	6.4	NA	NA	220	-6.0	NA	NA
2007	3,229	2,044	8.3	10,974	6.4	NA	NA	248	12.7	NA	NA
2008	3,395	2,186	6.9	11,638	6.1	NA	NA	263	6.0	NA	NA
2009	3,581	2,278	4.2	12,497	7.4	NA	NA	264	0.4	NA	NA
2010	3,711	2,369	4.0	13,666	9.4	NA	NA	259	-1.9	NA	NA

(Continued)

Table 15. (Continued)

Year	Black or African American ^a	Hispanic or Latino ^a	% Change From Previous Year	Asian ^a	% Change From Previous Year	Native Hawaiian or Other Pacific Islander ^a	% Change From Previous Year	American Indian or Alaska Native ^a	% Change From Previous Year	Two or More Races ^a	% Change From Previous Year
2011 ^c	3,964	2,317	—	14,124	—	264	—	205	—	629	—
2012	4,226	2,537	6.6	14,441	2.2	594	125.0	238	16.1	968	53.9
2013	4,376	2,681	3.5	15,438	6.9	203	-65.8	222	-6.7	1,172	21.1
2014	4,690	2,907	7.2	15,955	3.3	152	-25.1	205	-7.7	1,370	16.9
2015	5,031	3,185	7.3	16,073	0.7	231	52.0	194	-5.4	1,491	8.8
2016	5,308	3,391	5.5	15,838	-1.5	235	1.7	192	-1.0	1,531	2.7

^aU.S. citizen or permanent resident

^bTotals for 1980-1984 are for enrollments in final three years of program only

^cNot able to calculate percent change due to change in how data are reported

^dIncludes B.S. Pharmacy, B.Pharm., and Pharm.D.1 from 1980-2005. Includes only Pharm.D.1 beginning in 2006

Table 16. Summary of Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) Fall 2016 Full-Time Enrollments by Gender and Discipline

Discipline	M.S. Degree				Ph.D. Degree			
	M	F	T	Percent of M.S. Program Enrollments	M	F	T	Percent of Ph.D. Program Enrollments
Medicinal Chemistry	42	37	79	6.4	433	311	744	22.2
Pharmacology	66	108	174	14.0	269	307	576	17.2
Social and Administrative Sciences	108	151	259	20.9	167	195	362	10.8
Pharmacy Practice	47	84	131	10.6	63	86	149	4.4
Pharmaceutics	176	274	450	36.3	648	578	1,226	36.6
Other ^a	49	99	148	11.9	158	135	293	8.7
Total	488	753	1,241		1,738	1,612	3,350	

^aIncludes RSCI, MDD, HCDA, immunology, pharmaceutical affairs, pharmaceutical nanotechnology, pharmaceutical & biomedical sciences, clinical psychopharmacology, undecided, pharmacogenomics, drug design & discovery, biomedical nanotechnology, biomolecular science, and pharmacotherapeutics for M.S. programs and bioengineering/biophysics/biological & medical informatics, DRSc, clinical pharmaceutical sciences, pharmacogenetics, pharmaceutical & biomedical science, drug design & discovery, undecided, biomolecular science, and translational science for Ph.D. programs

Table 17. Fall 2016 Enrollments in Ph.D. Programs by Type of Enrollment (Full-Time, Part-Time), Discipline, and Source of Previous Degree Earned^a

	U.S. School		Canadian School		Foreign School		All Schools	
	Pharm	Non-pharm	Pharm	Non-pharm	Pharm	Non-pharm	Pharm	Non-pharm
Full-time								
Medicinal Chemistry	36	366	0	0	137	132	173	498
Pharmacology	44	226	1	1	176	97	221	324
Social and Admin. Sciences	50	93	2	0	126	54	178	147
Pharmacy Practice	25	40	0	0	44	36	69	76
Pharmaceutics	121	340	0	1	390	250	511	591
Other	7	59	0	1	22	39	29	99
Total full-time	283	1,124	3	3	895	608	1,181	1,735
Part-time								
Medicinal Chemistry	2	1	0	0	4	0	6	1
Pharmacology	1	16	0	0	10	2	11	18
Social and Admin. Sciences	4	10	0	0	4	2	8	12
Pharmacy Practice	0	0	0	0	0	0	0	0
Pharmaceutics	3	11	0	0	16	4	19	15
Other	0	16	0	2	2	0	2	18
Total part-time	10	54	0	2	36	8	46	64

^aIncludes only those students for whom source of degree was reported

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