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The Pharmacy Student Population: Applications Received 2011-12, Degrees Conferred 2011-12, Fall 2012 Enrollments

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INTRODUCTION

This report presents data that describe the 2011-12 pharmacy application pool, degrees conferred in 2011-12, and fall 2012 pharmacy program enrollments. Data for this report were requested from the 129 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/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.

2011-12 APPLICATION POOL

The 2011-12 Application Pool Survey was conducted online in November 2012, with an announcement and request for participation sent to the survey coordinator at each of the 129 colleges and schools of pharmacy in the U.S. recognized by ACPE. After follow-up correspondence and telephone calls, 127 colleges and schools (98.4 percent) submitted the requested information. Included in the application pool are students who applied for admission and submitted all required application materials between September 2011 and August 2012 for the entering class of fall 2012. Numbers reported represent the number of applications, not applicants, and may represent multiple applications submitted by individual applicants.

During the period September 2011 through August 2012, the reporting institutions received 99,821 applications for admission. When compared with entering class enrollment data for fall 2012 at these institutions, the resultant ratio was 6.4 applications received for every one entering student enrolled. The corresponding data for the 123 colleges and schools reporting for the same period in 2010-11 were 106,815 applications received; 7.0 applications for every one entering student enrolled

Table 1. Distribution of 2011-2012 Applications by Gender and Race/Ethnicity of Applicant^a

Race/Ethnicity	Male	Female	Gender Not Specified	Total (%)
White ^b	14,394	21,793	62	36,249 (36.3)
Black or African American ^b	4,198	5,979	41	10,218 (10.2)
Hispanic or Latino ^b	2,136	3,151	37	5,324 (5.3)
Asian ^b	13,133	20,917	122	34,172 (34.2)
Native Hawaiian or Other Pacific Islander ^b	71	101	15	187 (0.2)
American Indian or Alaska Native ^b	98	98	0	196 (0.2)
Two or more races ^b	863	1,207	0	2,070 (2.1)
Unknown ^b	2,410	3,867	710	6,987 (7.0)
International/Foreign ^c	1,673	2,722	23	4,418 (4.4)
Total	38,976	59,835	1,010	99,821

^a Represents data, some incomplete, submitted by 127 schools

^b US citizen or permanent resident

^c Citizens of a foreign country/permanent residents of a country other than the United States

in fall 2011. For the 123 colleges and schools reporting application data for both 2010-11 and 2011-12, there was an 8.1 percent decrease in the number of applications received.

In 2011-12, females submitted 59.9 percent of the applications to pharmacy colleges and schools; males submitted 39.0 percent; gender unknown/not reported submitted 1.0 percent. White Americans submitted 36.3 percent of the applications, Asian Americans submitted 34.2 percent of the applications, and underrepresented minorities submitted 16.0 percent of the applications (black, 10.2 percent; Hispanic, 5.3 percent; Native Hawaiian/Other Pacific Islander, 0.2 percent; American Indian/Alaska Native, 0.2 percent). 2.1 percent of the applications to the Pharm.D. as the first professional degree programs were from applicants of two or more races and 4.4 percent of the applications were submitted by foreign, nonpermanent residents [Table 1]. For the eighth consecutive year, colleges and schools of pharmacy received more applications from out-of-state residents (58.6 percent) compared to 41.4 percent from in-state residents. This increase in out-of-state applicants can be attributed to the ease of

applying to colleges and schools of pharmacy in different states through PharmCAS.

Over 44 percent (44.4 percent) of the applications to the Pharm.D. as the first professional degree programs were submitted by individuals who had previously obtained a baccalaureate degree or higher (baccalaureate, 41.4 percent; master's, 2.7 percent; doctorate, 0.3 percent), down from 45.4 percent the previous year [Table 2]. Over 75 percent (75.2 percent) of the applications to colleges and schools of pharmacy were submitted by individuals who had 3 or more years of postsecondary experience.

2011-12 DEGREES CONFERRED

The 2011-12 Professional Degrees Conferred and Graduate Degrees Conferred surveys were conducted online in November 2012, with an announcement and request for participation sent to the survey coordinator at each of the 129 colleges and schools of pharmacy in the U.S. recognized by ACPE. Submission of the data was requested by December 2012. After follow-up correspondence and telephone calls, 127 colleges and schools (98.4 percent) submitted the requested information.

Table 2. Distribution of 2011-2012 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	4,535	7,091	1	1,1627 (11.9)
1-2 Years of College/No Degree	2,237	3,319	49	5,605 (5.7)
Associate's Degree	2,973	3,944	54	6,971 (7.1)
3 or More Years of College/No Degree	11,323	18,401	322	30,046 (30.8)
Baccalaureate Degree	15,839	24,097	541	40,477 (41.4)
Master's Degree	1,020	1,565	34	2,619 (2.7)
Doctoral Degree	145	162	5	312 (0.3)

^a Represents data, some incomplete, submitted by 126 schools

Table 3. Number of Pharmacy Degrees Conferred 1965-2012 by Degree and Gender

Year	BS Pharmacy ^a			Pharm.D.1 ^b			First Professional ^c			Pharm.D.2 ^d			MS			PhD		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
1965	2723	454	3177	162	21	183	2885	475	3360				150	26	176	105	3	108
1966	2970	500	3470	161	28	189	3131	528	3659				152	38	190	108	15	123
1967	3078	493	3571	136	37	173	3214	530	3744				235	32	267	118	8	126
1968	3194	572	3766	183	39	222	3377	611	3988				219	44	263	124	10	134
1969	3384	695	4079	178	31	209	3562	726	4288				235	42	277	136	9	145
1970	3664	853	4517	192	49	241	3856	902	4758				236	54	290	131	10	141
1971	3589	935	4524	160	63	223	3749	998	4747				219	56	275	169	8	177
1972	3498	1072	4570	215	73	288	3713	1145	4858				205	56	261	155	13	168
1973	3674	1259	4933	184	67	251	3858	1326	5184	99	18	117	273	53	326	172	15	187
1974	4104	1559	5663	205	89	294	4309	1648	5957	117	23	140	250	70	320	165	19	184
1975	4607	1792	6399	218	95	313	4825	1887	6712	110	26	136	250	89	339	165	24	189
1976	4940	2165	7105	250	109	359	5190	2274	7464	88	38	126	301	92	393	163	26	189
1977	5108	2541	7649	255	107	362	5363	2648	8011	147	42	189	309	90	399	147	19	166
1978	4715	2715	7430	246	109	355	4961	2824	7785	132	65	197	305	117	422	158	20	178
1979	4260	2835	7095	278	183	461	4538	3018	7556	139	51	190	301	134	435	125	28	153
1980	4154	2831	6985	267	180	447	4421	3011	7432	120	60	180	315	150	465	155	34	189
1981	3753	3116	6869	265	189	454	4018	3305	7323	109	101	210	271	163	434	152	28	180
1982	3417	3031	6448	217	194	411	3634	3225	6859	119	88	207	293	165	458	146	36	182
1983	2994	2925	5919	240	215	455	3234	3140	6374	136	135	271	277	149	426	154	54	208
1984	2826	2720	5546	188	229	417	3014	2949	5963	169	162	331	253	141	394	174	53	227
1985	2362	2785	5147	281	307	588	2643	3092	5735	121	103	224	210	128	338	175	57	232
1986	2370	2820	5190	278	332	610	2648	3152	5800	97	113	210	245	170	415	192	68	260
1987	2235	2929	5164	291	399	690	2526	3328	5854	86	126	212	197	151	348	203	80	283
1988	2245	3126	5371	322	491	813	2567	3617	6184	74	85	159	194	159	353	188	75	263
1989	2313	3408	5721	314	525	839	2627	3933	6560	99	123	222	226	165	391	175	112	287
1990	2393	3617	6010	388	558	946	2781	4175	6956	118	184	302	202	183	385	181	92	273
1991	2268	3659	5927	436	759	1195	2704	4418	7122	106	165	271	189	175	364	201	112	313
1992	2261	3636	5897	436	780	1216	2697	4416	7113	124	162	286	148	134	282	195	122	317
1993	2244	3787	6031	460	889	1349	2704	4676	7380	141	255	396	148	153	301	223	125	348
1994	2274	3871	6145	435	924	1359	2709	4795	7504	208	367	575	182	173	355	198	122	320
1995	2291	3927	6218	553	1066	1619	2844	4993	7837	270	434	704	187	205	392	218	132	350
1996	2311	3857	6168	583	1252	1835	2894	5109	8003	264	468	732	217	205	422	186	118	304
1997	2212	3556	5768	691	1313	2004	2903	4869	7772	321	538	859	191	209	400	218	140	358
1998	1818	2950	4768	830	1802	2632	2648	4752	7400	351	663	1014	197	224	421	238	173	411
1999	1528	2348	3876	1081	2184	3265	2609	4532	7141	315	598	913	172	212	384	221	138	359
2000	1115	1841	2956	1432	2872	4304	2547	4713	7260	469	800	1269	154	200	354	174	149	323
2001	754	1160	1914	1730	3356	5086	2484	4516	7000	367	612	979	182	279	461	211	164	375
2002	540	875	1415	2055	4103	6158	2595	4978	7573	276	504	780	178	265	443	216	160	376
2003	303	536	839	2333	4316	6649	2636	4852	7488	338	557	895	199	273	472	210	174	384
2004	153	235	388	2568	5202	7770	2721	5437	8158	277	479	756	274	377	651	176	159	335
2005	16	10	26	2618	5624	8242	2634	5634	8268	241	427	668	233	393	626	215	214	429
2006	0	0	0	2875	6165	9040	2875	6165	9040	202	313	515	241	403	644	252	190	442
2007	0	0	0	3171	6641	9812	3171	6641	9812	97	373	470	236	368	604	220	192	412
2008	0	0	0	3575	6925	10500	3575	6925	10500	225	402	627	275	457	732	262	206	468
2009	0	0	0	3912	7076	10988	3912	7076	10988	179	349	528	371	396	767	228	230	458
2010	0	0	0	4287	7200	11487	4287	7200	11487	191	336	527	343	430	773	243	207	450
2011	0	0	0	4553	7378	11931	4553	7378	11931	167	248	415	352	470	822	250	221	471
2012	0	0	0	4937	7782	12719	4937	7782	12719	163	281	444	298	383	681	275	222	497

^a Includes BPharm degree

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

^c Includes BS Pharmacy, BPharm, and Pharm.D.1.

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

Table 4. Baccalaureate and Doctor of Pharmacy (Pharm.D.1) Degrees as Percentages of Total First Professional Degrees Conferred 1981-2012

Year	BS Pharmacy, ^a No. (%)	Pharm.D.1, ^b No. (%)	First Professional, ^c 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	9,040 (100.0)	9,040
2007	0	9,812 (100.0)	9,812
2008	0	10,500 (100.0)	10,500
2009	0	10,988 (100.0)	10,988
2010	0	11,487 (100.0)	11,487
2011	0	11,931 (100.0)	11,931
2012	0	12,719 (100.0)	12,719

^a Includes B.Pharm. degree

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

^c Includes B.S. Pharmacy, B.Pharm., and Pharm.D.1.

Professional Degrees Conferred

Numbers of degrees conferred by U.S. colleges and schools of pharmacy from 1965 to 2012 are presented in Table 3.

First Professional Degrees Conferred. In 2011-12, 110 colleges and schools conferred the doctor of pharmacy as a first professional degree (Pharm.D.1). Graduating Pharm.D.1 class sizes ranged from 27 students to 307 students (median, 103 students). Seventeen of the 127 colleges and schools of pharmacy did not confer degrees in 2011-12. These schools were new programs

whose students had not yet progressed through the entire curriculum (Regis, Saint Joseph, South Florida, PCOM-Georgia, Roosevelt, Rosalind Franklin, Manchester, Husson, New England, Notre Dame, Maryland Eastern Shore, Western New England, Fairleigh Dickinson, D'Youville, Cedarville, Presbyterian, and Concordia).

In 2011-12 there were 12,719 first professional degrees conferred by colleges and schools of pharmacy compared to 11,931 in 2010-11. [Table 4]. The total number of first professional degrees conferred in 2011-12 represented a 6.6 percent increase from the total number of first professional degrees conferred in 2010-11 [Table 5].

In 1979-80, men received 59.5 percent of the first professional degrees conferred by colleges and schools of pharmacy and women received 40.5 percent. Over the past 30 years, these percentages have shifted dramatically and, in 2011-12, men received 38.8 percent of the first professional degrees conferred, and 61.2 percent of these degrees were received by women. Women received their highest percentage of degrees conferred (68.2 percent) in 2004-05 and 2005-06. [Table 6].

White Americans received 58.1 percent of first professional degrees conferred in 2011-12. Underrepresented minorities received 12.8 percent of the first professional degrees conferred in 2011-12 (black, 6.5 percent; Hispanic, 4.2 percent; Native Hawaiian/Other Pacific Islander, 1.6 percent; American Indian/Alaska Native, 0.5 percent). Asian Americans received 21.9 percent of the first professional degrees. The percentage of first professional degree recipients who were of two or more races was 0.8 percent and the percentage of recipients who were foreign, nonpermanent residents of the U.S. was 2.2 percent. [Table 7].

Doctor of Pharmacy Degrees Conferred to Post-baccalaureate Students. Seventeen colleges and schools conferred the Pharm.D. degree to postbaccalaureate students in 2011-12. The number of graduates per institution ranged from 1 to 179 students (median, 12 students). The number of doctor of pharmacy degrees conferred as post-baccalaureate degrees (Pharm.D.2) increased by 7.0 percent to 444 in 2011-12 from 415 in 2010-11 [Table 5]. More women than men received Pharm.D.2 degrees in 2011-12 (women, 63.3 percent; men, 36.7 percent) [Table 6].

White Americans received 41.0 percent of Pharm. D.2 degrees conferred in 2011-12. Underrepresented minorities received 16.2 percent of the Pharm.D.2 degrees conferred (black, 10.4 percent; Hispanic, 5.9 percent; Native Hawaiian/Other Pacific Islander, 0.0 percent; American Indian/Alaska Native, 0.0 percent). Asian Americans received 21.6 percent of the Pharm.D.2 degrees conferred in 2011-12. Students of two or more races did not receive any Pharm.D.2 degrees in 2011-12. The

Table 5. Annual Percentage Change in Number of Pharmacy Degrees Conferred 1981-2012 Over Previous Year

Year	First Professional, ^a No. (% Change)	Pharm.D.2, ^b No. (% Change)	MS, No. (% Change)	PhD, 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 9+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)

^a Includes BS Pharmacy, BPharm, and Pharm.D.1 from 1981-2005. Includes only Pharm.D.1 beginning in 2006.

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

percentage of Pharm.D.2 degree recipients who were foreign, nonpermanent residents of the U.S. was 11.7 percent, down from 15.9 percent in 2010-11 [Table 8].

Graduate Degrees Conferred

The number of master of science (M.S.) degrees conferred has shown annual fluctuations over the 47 years data have been consistently gathered and reported [Table 3]. The number of M.S. degrees conferred decreased from 822 in 2010-11 to 681 in 2011-12, a 17.2 percent decrease. The number of Ph.D. degrees conferred increased in 2011-12 to 497 from 471 in 2010-11 (5.5 percent increase) [Table 5].

The highest percentage of M.S. degrees awarded in 2011-12 (25.1 percent) was in pharmaceuticals. The second highest percentage of M.S. degrees was in other discipline

(21.4 percent); followed by social and administrative sciences (21.1 percent); pharmacy practice (15.3 percent); medicinal chemistry (9.0 percent); and pharmacology (8.1 percent). The highest number of Ph.D. degrees awarded in 2011-12 was in the discipline of pharmaceuticals (38.2 percent). The second highest number was in medicinal chemistry (22.5 percent); followed by pharmacology (18.7 percent); social and administrative sciences (8.2 percent); other discipline (7.0 percent); and pharmacy practice (5.2 percent) [Table 9].

More women than men earned M.S. degrees (women, 56.2 percent; men, 43.8 percent) in 2011-12; however, more men than women earned Ph.D. degrees (women, 44.7 percent; men, 55.3 percent). 2008-09 was the only year that women received more Ph.D. degrees than men. The percentage of women receiving Ph.D. degrees in

Table 6. Percentage of Pharmacy Degrees Conferred 1980-2012 by Gender

Year	BS Pharmacy ^a		Pharm.D.1 ^b		First Professional ^c		Pharm.D.2 ^d		MS		PhD	
	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

^a Includes BPharm degree

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

^c Includes BS Pharmacy, BPharm, and Pharm.D.1 from 1981-2005. Includes only Pharm.D.1 beginning in 2006

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

2011-12 decreased from 46.9 percent in 2010-11. Despite the decrease from the 2008-09 high, the share of Ph.D. degrees received by women has grown substantially from 18.0 percent in 1979-80 [Table 6]. This increase can be attributed to an increase in the number of foreign females receiving Ph.D. degrees. Black, Hispanic, and American Indian/Alaska Native women have a propensity to be underrepresented as Ph.D. recipients. In 2011-12, 14 black women, 11 Hispanic women, and 1 American Indian woman received Ph.D.s. From 1979-80 to 2011-12, 185 Ph.D. degrees were conferred to black women, 73 to Hispanic women, and 6 to American Indian women. [Table 10].

Underrepresented minorities received 6.5 percent of the M.S. degrees conferred in 2011-12 (black, 3.5 percent; Hispanic, 2.2 percent; Native Hawaiian/Other Pacific Islander, 0.1 percent; American Indian/Alaska Native, 0.6 percent), a decrease from 7.1 percent in 2010-11. Asian Americans received 11.9 percent of the M.S. degrees conferred, up from 9.5 percent in 2010-11. The percentage of M.S. degree recipients who were of two or more races was 0.4 percent and the percent of degree recipients who were foreign, nonpermanent residents of the U.S. was 45.4 percent, down from 46.7 percent in 2010-11 [Table 11].

Underrepresented minorities earned 9.3 percent of the Ph.D. degrees awarded in 2011-12 (black, 5.0 percent;

Table 7. Percentage of First Professional Degree (BS Pharmacy, BPharm, and Pharm.D.1) Recipients 1980-2012 by Race/Ethnicity

Year	Black or African American, ^a		Hispanic or Latino, ^a		Asian, ^a		Native Hawaiian or Other Pacific Islander, ^a		American Indian or Alaska Native, ^a		Two or More Races, ^a		Unknown, ^a		International/ ^b Foreign, ^b	
	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)
1980	6,335 (85.2)	249 (3.4)	277 (3.7)	292 (3.9)	NA	8 (0.1)	NA	49 (0.7)	222 (3.0)							
1981	6,205 (84.7)	230 (3.1)	361 (4.9)	288 (3.9)	NA	5 (0.1)	NA	7 (0.1)	227 (3.1)							
1982	5,810 (84.7)	250 (3.6)	241 (3.5)	317 (4.6)	NA	13 (0.2)	NA	18 (0.3)	210 (3.1)							
1983	5,189 (81.4)	241 (3.8)	261 (4.1)	316 (5.0)	NA	8 (0.1)	NA	93 (1.5)	266 (4.2)							
1984	4,676 (78.4)	242 (4.1)	217 (3.6)	339 (5.7)	NA	10 (0.2)	NA	174 (2.9)	305 (5.1)							
1985	4,591 (80.1)	250 (4.4)	245 (4.3)	320 (5.6)	NA	6 (0.1)	NA	8 (0.1)	315 (5.5)							
1986	4,534 (78.2)	306 (5.3)	217 (3.7)	333 (5.7)	NA	11 (0.2)	NA	0 (0.0)	399 (6.9)							
1987	4,559 (77.9)	298 (5.1)	258 (4.4)	371 (6.3)	NA	8 (0.1)	NA	15 (0.3)	345 (5.9)							
1988	4,943 (79.9)	282 (4.6)	248 (4.0)	335 (5.4)	NA	12 (0.2)	NA	27 (0.4)	337 (5.4)							
1989	5,040 (76.8)	310 (4.7)	249 (3.8)	454 (6.9)	NA	12 (0.2)	NA	90 (1.4)	405 (6.2)							
1990	5,303 (76.2)	368 (5.3)	254 (3.7)	586 (8.4)	NA	11 (0.2)	NA	88 (1.3)	346 (5.0)							
1991	5,381 (75.6)	350 (4.9)	288 (4.1)	745 (10.5)	NA	20 (0.3)	NA	58 (0.8)	280 (3.9)							
1992	5,304 (74.6)	381 (5.4)	289 (4.1)	771 (10.8)	NA	20 (0.3)	NA	40 (0.6)	308 (4.3)							
1993	5,346 (72.4)	452 (6.1)	260 (3.5)	873 (11.8)	NA	19 (0.3)	NA	124 (1.7)	306 (4.1)							
1994	5,476 (73.0)	385 (5.1)	269 (3.6)	972 (13.0)	NA	23 (0.3)	NA	122 (1.6)	257 (3.4)							
1995	5,584 (71.3)	445 (5.7)	282 (3.6)	1,161 (14.8)	NA	28 (0.4)	NA	48 (0.6)	289 (3.7)							
1996	5,527 (69.1)	528 (6.6)	266 (3.3)	1,328 (16.6)	NA	25 (0.3)	NA	56 (0.7)	273 (3.4)							
1997	5,364 (69.0)	446 (5.7)	282 (3.6)	1,363 (17.5)	NA	34 (0.4)	NA	45 (0.6)	238 (3.1)							
1998	5,041 (68.1)	444 (6.0)	264 (3.6)	1,404 (19.0)	NA	26 (0.4)	NA	58 (0.8)	163 (2.2)							
1999	4,597 (64.4)	401 (5.6)	266 (3.7)	1,327 (18.6)	NA	36 (0.5)	NA	366 (5.1)	148 (2.1)							
2000	4,517 (62.2)	480 (6.6)	287 (4.0)	1,505 (20.7)	NA	44 (0.6)	NA	223 (3.1)	204 (2.8)							
2001	4,469 (63.8)	428 (6.1)	253 (3.6)	1,456 (20.8)	NA	26 (0.4)	NA	194 (2.8)	174 (2.5)							
2002	4,648 (61.4)	575 (7.6)	303 (4.0)	1,625 (21.5)	NA	47 (0.6)	NA	198 (2.6)	177 (2.3)							
2003	4,473 (59.7)	591 (7.9)	310 (4.1)	1,691 (22.6)	NA	38 (0.5)	NA	182 (2.4)	203 (2.7)							
2004	4,954 (60.7)	612 (7.5)	295 (3.6)	1,857 (22.8)	NA	32 (0.4)	NA	190 (2.3)	218 (2.7)							
2005	5,031 (60.8)	720 (8.7)	361 (4.4)	1,683 (20.4)	NA	52 (0.6)	NA	226 (2.7)	195 (2.4)							
2006 ^c	5,650 (62.5)	668 (7.4)	377 (4.2)	1,822 (20.2)	NA	39 (0.4)	NA	265 (2.9)	219 (2.4)							
2007	6,182 (63.0)	682 (7.0)	386 (3.9)	1,970 (20.1)	NA	53 (0.5)	NA	337 (3.4)	202 (2.1)							
2008	6,560 (62.5)	702 (6.7)	407 (3.9)	2,106 (20.1)	NA	61 (0.6)	NA	424 (4.0)	240 (2.3)							
2009	6,660 (60.6)	688 (6.3)	454 (4.1)	2,333 (21.2)	NA	64 (0.6)	NA	497 (4.5)	292 (2.7)							
2010	6,880 (59.9)	744 (6.5)	489 (4.3)	2,463 (21.4)	NA	50 (0.4)	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)	42 (0.4)	NA	520 (4.4)	308 (2.6)							
2012	7,396 (58.1)	832 (6.5)	532 (4.2)	2,784 (21.9)	198 (1.6)	61 (0.5)	NA	537 (4.2)	281 (2.2)							

^a US citizen or permanent resident

^b Citizens of a foreign country/permanent residents of a country other than the United States

^c Includes only Pharm.D.1 degrees from 2006 onward

Table 8. Percentage of Postbaccalaureate Doctor of Pharmacy Degree (Pharm.D.2) Recipients 1980-2012 by Race/Ethnicity

Year	White, ^a		Black or African American, ^a		Hispanic or Latino, ^a No. (%)		Asian, ^a No. (%)		Native Hawaiian or Other Pacific Islander, ^a No. (%)		American Indian or Alaska Native, ^a No. (%)		Two or More Races, ^a No. (%)		Unknown, ^a No. (%)		International/ Foreign, ^b No. (%)	
	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	
1980	161 (89.4)	4 (2.2)		2 (1.1)		3 (1.7)		NA		0		NA		0		10 (5.6)		
1981	171 (81.4)	7 (3.3)		9 (4.3)		5 (2.4)		NA		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		16 (7.7)		
1983	217 (80.1)	23 (8.5)		7 (2.6)		9 (3.3)		NA		0		NA		0		15 (5.5)		
1984	268 (81.0)	10 (3.0)		5 (1.5)		8 (2.4)		NA		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		NA		0		29 (13.8)		
1987	170 (80.2)	5 (2.4)		7 (3.3)		6 (2.8)		NA		0		NA		4 (1.9)		20 (9.4)		
1988	124 (78.0)	5 (3.1)		1 (0.6)		3 (1.9)		NA		0		NA		0		26 (16.4)		
1989	171 (77.0)	9 (4.1)		3 (1.4)		14 (6.3)		NA		0		NA		0		25 (11.3)		
1990	244 (80.8)	13 (4.3)		10 (3.3)		10 (3.3)		NA		0		NA		4 (1.3)		21 (7.0)		
1991	217 (80.1)	11 (4.1)		4 (1.5)		11 (4.1)		NA		0		NA		2 (0.7)		26 (9.6)		
1992	232 (81.1)	15 (5.2)		2 (0.7)		6 (2.1)		NA		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		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		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		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		24 (5.8)		66 (15.9)		
2012	182 (41.0)	46 (10.4)		26 (5.9)		96 (21.6)		0		0		0		42 (9.5)		52 (11.7)		

^a US citizen or permanent resident^b Citizens of a foreign country/permanent residents of a country other than the United States

Table 9. Summary of Master of Science and Doctor of Philosophy Degrees Conferred 2011-12 by Gender and Discipline

Discipline	MS Degree				PhD Degree			
	M	F	Total	Percent of MS Degrees Conferred	M	F	Total	Percent of PhD Degrees Conferred
Medicinal chemistry	25	36	61	9.0	65	47	112	22.5
Pharmacology	21	34	55	8.1	42	51	93	18.7
Social and administrative sciences	70	74	144	21.1	19	22	41	8.2
Pharmacy practice	43	61	104	15.3	12	14	26	5.2
Pharmaceutics	85	86	171	25.1	113	77	190	38.2
Other ^a	54	92	146	21.4	24	11	35	7.0
Total	298	383	681		275	222	497	

^a Includes Pharmaceutical Encounters and Policy, Biophysics, Regulatory Affairs, Pharmaceutical Sciences & Toxicology, Pharmacotherapy, Quality Assurance & Regulatory Affairs, Biomedical Regulatory Affairs, and Nutrition and Exercise Physiology in M.S. programs and Bioengineering/Biophysics/Biological & Medical Informatics, Pharmaceutical & Biomedical Science, Nanomedicine, Pharmacodynamics, and CMB/CHEM supervised students in Ph.D. programs.

Hispanic, 3.6 percent; Native Hawaiian/Other Pacific Islander, 0.2 percent; American Indian/Alaska Native, 0.4 percent), a decrease from 9.9 percent in 2010-11. Asian Americans earned 12.3 percent of the Ph.D. degrees awarded. The percentage of Ph.D. degree recipients who were of two or more races was 0.4 percent and the percentage of degree recipients that were foreign, nonpermanent residents of the U.S. was 42.3 percent, down from 45.0 percent in 2010-11. [Table 12].

FALL 2012 ENROLLMENTS

The 2012 Professional Degree Enrollment and Graduate Degree Enrollment Surveys were conducted online in November 2012, with an announcement and request for participation sent to the survey coordinator at each of the 129 colleges and schools of pharmacy in the U.S. recognized by ACPE. Submission of the data was requested by December 2012. Follow-up telephone calls were made to non-responding colleges and schools and to those submitting incomplete data. After follow-up correspondence and telephone calls, 127 colleges and schools (98.4 percent) submitted the requested information.

Professional Degree Programs

Fall 2012 enrollments in the Pharm.D. as the first professional degree programs (n=61,275) represented a 4.0 percent increase from enrollments in fall 2011 (n=58,915) [Table 13]. In fall 2012, 61.0 percent of the students enrolled in the Pharm.D. as the first professional degree programs were females and 39.0 percent were males [Table 14].

White Americans comprised the majority (53.2 percent) of students enrolled in the Pharm.D. as the first professional degree programs. Asian Americans accounted for 23.6 percent; black Americans, 6.9 percent; Hispanic Americans, 4.1 percent; Native Hawaiians/Other Pacific Islanders, 1.0 percent; American Indians/Alaska Natives,

0.4 percent; and foreign students, 2.8 percent. Students that identified as two or more races accounted for 1.6 percent of all first professional degree enrollments. Over 6 percent (6.4 percent) of enrollees were listed as unknown. Enrollments of underrepresented minorities (black, Hispanic, Native Hawaiian/Other Pacific Islander, American Indian/Alaska Native) as a percentage of total enrollments in the Pharm.D. as the first professional degree programs increased from fall 2011 to fall 2012 (11.5 percent in fall 2011 compared to 12.4 percent in fall 2012). The increase in the percentage of underrepresented minorities over the last 2 years can partially be attributed to the inclusion of Native Hawaiian/Other Pacific Islander as its own race/ethnicity category in 2011. Prior to 2011, Native Hawaiians/Other Pacific Islanders were included in the Asian category [Table 15].

Seventeen colleges and schools reported 1,260 students who already held a baccalaureate in pharmacy enrolled in doctor of pharmacy degree programs (Pharm.D.2). This was a decrease of 6.0 percent from fall 2011. Underrepresented minorities accounted for 13.3 percent of these students (black, 9.7 percent; Hispanic, 3.1 percent; Native Hawaiians/Other Pacific Islander, 0.0 percent; American Indians/Alaska Native, 0.5 percent). White Americans comprised 34.3 percent; Asian Americans, 16.2 percent; students of two or more races, 0.4 percent; unknown, 17.8 percent; and foreign students, 18.1 percent.

Graduate Degree Programs

In fall 2012, the discipline of pharmaceutics had the highest percentage of full-time enrollees at both the M.S. and Ph.D. levels (28.8 percent and 32.3 percent, respectively). At the master's level, 20.1 percent of the students enrolled were in social and administrative sciences programs; 18.8 percent in pharmacology programs; 15.8 percent in pharmacy practice programs; 10.4 percent

Table 10. Number of Doctor of Philosophy Degrees (PhD) Conferred 1980-2012 by Gender and Race/Ethnicity

[illegible]^a US citizen or permanent resident

^b Citizens of a foreign country/permanent residents of a country other than the United States

Table 11. Percentage of Master of Science (MS) Degree Recipients 1990-2012 by Race/Ethnicity

Year	White, ^a	Black or African	Hispanic		Native Hawaiian		American Indian or		Two or More	Unknown, ^a	International/ ^b
	No. (%)	American, ^a No. (%)	or Latino, ^a	Asian, ^a	Islander, ^a No. (%)	Alaska Native, ^a	Races, ^a No. (%)	No. (%)			
1980	299 (64.3)	10 (2.2)	3 (0.6)	27 (5.8)	NA	0	NA	41 (8.8)	85 (18.3)		
1981	305 (70.3)	17 (3.9)	2 (0.5)	14 (3.2)	NA	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	NA	40 (9.4)	88 (20.7)		
1984	254 (64.5)	8 (2.0)	4 (1.0)	16 (4.1)	NA	0	NA	21 (5.3)	91 (23.1)		
1985	215 (63.6)	10 (3.0)	3 (0.9)	11 (3.3)	NA	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	111 (26.7)		
1987	231 (66.4)	6 (1.7)	4 (1.1)	11 (3.2)	NA	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	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	NA	2 (0.5)	97 (26.6)		
1992	140 (49.6)	14 (5.0)	9 (3.2)	14 (5.0)	NA	0	NA	5 (1.8)	100 (35.5)		
1993	149 (49.5)	9 (3.0)	20 (6.6)	13 (4.3)	NA	0	NA	5 (1.7)	105 (34.9)		
1994	169 (47.6)	8 (2.3)	13 (3.7)	19 (5.4)	NA	0	NA	5 (1.4)	141 (39.7)		
1995	206 (52.6)	16 (4.1)	16 (4.1)	32 (8.2)	NA	0	NA	1 (0.3)	121 (30.9)		
1996	236 (55.9)	12 (2.8)	16 (3.8)	23 (5.5)	NA	0	NA	8 (1.9)	127 (30.1)		
1997	194 (48.5)	18 (4.5)	17 (4.3)	36 (9.0)	NA	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	NA	15 (3.4)	171 (38.6)		
2003	206 (43.6)	35 (7.4)	11 (2.3)	68 (14.4)	NA	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	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)	NA	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)	1 (0.1)	27 (4.0)	309 (45.4)		

^a US citizen or permanent resident

^b Citizen of a foreign country/permanent residents of a country other than the United States

Table 12. Percentage of Doctor of Philosophy Degree (PhD) Recipients 1980-2012 by Race/Ethnicity

Year	White, ^a No. (%)	Black or African American, ^a No. (%)	Hispanic or Latino, ^a No. (%)	Asian, ^a No. (%)	Native Hawaiian or Other Pacific Islander, ^a No. (%)	American Indian or Alaska Native, ^a No. (%)	Two or More Races, ^a No. (%)	Unknown, ^a No. (%)	International/ Foreign, ^b No. (%)
1980	112 (59.3)	3 (1.6)	1 (0.5)	12 (6.3)	NA	0	NA	3 (1.6)	58 (30.7)
1981	133 (73.9)	1 (0.6)	1 (0.6)	8 (4.4)	NA	0	NA	0	37 (20.6)
1982	126 (69.2)	1 (0.5)	1 (0.5)	3 (1.6)	NA	0	NA	1 (0.5)	50 (27.5)
1983	132 (63.5)	0 (0.0)	1 (0.5)	9 (4.3)	NA	0	NA	4 (1.9)	62 (29.8)
1984	135 (59.5)	2 (0.9)	7 (3.1)	13 (5.7)	NA	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	77 (33.2)
1986	160 (61.5)	2 (0.8)	1 (0.4)	6 (2.3)	NA	0	NA	0	91 (35.0)
1987	162 (57.2)	2 (0.7)	4 (1.4)	13 (4.6)	NA	0	NA	8 (2.8)	94 (33.2)
1988	145 (55.1)	2 (0.8)	3 (1.1)	6 (2.3)	NA	0	NA	2 (0.8)	105 (39.9)
1989	154 (53.7)	4 (1.4)	4 (1.4)	10 (3.5)	NA	0	NA	6 (2.1)	109 (38.0)
1990	151 (55.3)	7 (2.6)	1 (0.4)	24 (8.8)	NA	0	NA	8 (2.9)	82 (30.0)
1991	168 (53.7)	8 (2.6)	3 (1.0)	26 (8.3)	NA	0	NA	5 (1.6)	103 (32.9)
1992	138 (43.5)	8 (2.5)	4 (1.3)	21 (6.6)	NA	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	159 (45.7)
1994	150 (46.9)	6 (1.9)	4 (1.3)	25 (7.8)	NA	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	NA	3 (1.0)	129 (42.4)
1997	145 (40.5)	10 (2.8)	3 (0.8)	25 (7.0)	NA	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	NA	15 (4.2)	155 (43.2)
2000	123 (38.1)	11 (3.4)	0 (0.0)	38 (11.8)	NA	0	NA	20 (6.2)	131 (40.6)
2001	129 (34.4)	15 (4.0)	6 (1.6)	54 (14.4)	NA	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	NA	5 (1.3)	186 (48.4)
2004	114 (34.0)	11 (3.3)	5 (1.5)	31 (9.3)	NA	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	NA	2 (0.5)	254 (57.5)
2007	128 (31.1)	16 (3.9)	8 (1.9)	35 (8.5)	NA	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	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	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)

^a US citizen or permanent resident.

^b Nonpermanent resident/citizen of a country other than the United States.

Table 13. Summary of Enrollments in First Professional Degree Programs 1980-2012

Year	First Professional Year Classes, ^a No. (% Change)	All Professional Years, ^b No. (% Change)	Total Enrollment, 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)

^a Includes 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.

^b Includes the final 3 years only of all first professional degree programs for 1980-1991; includes all professional years for 1992-2011 (3 years for baccalaureate and 4 years for PharmD).

^c Not able to calculate percent change due to change in how data are reported by select institutions

in medicinal chemistry programs; and 6.1 percent in other discipline. At the doctoral level, 24.4 percent of the students were enrolled in medicinal chemistry programs; 19.8 percent in pharmacology programs; 10.8 percent in social and administrative science programs; 9.0 percent in other discipline; and 3.6 percent in pharmacy practice [Table 16].

In fall 2012, more females than males were enrolled full-time in M.S. degree programs (females, 58.3 percent; males, 41.7 percent). Women accounted for 47.8 percent of the students enrolled full-time in Ph.D. programs in 2012, down slightly from 48.0 percent in 2011.

Of the 1,000 students enrolled full-time in M.S. degree programs in fall 2012, the majority (56.7 percent) were foreign students. White Americans comprised 23.4 percent of enrollees and Asian Americans accounted for 7.9 percent. Underrepresented minorities accounted for 8.5 percent of M.S.enrollees (black, 4.7 percent; Hispanic, 3.0 percent; American Indians/Alaska Native, 0.6 percent; Native Hawaiian/Other Pacific Islander, 0.2 percent). Americans of two or more races made up 0.2 percent of enrollees and 3.3 percent of all full-time M.S. degree enrollees were reported as unknown.

Table 14. Summary of Enrollments in First Professional Degree Programs by Gender 1980-2012

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	38,902	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

^a Not able to calculate percent change due to change in how data is reported by select institutions

^b Includes only Pharm.D.1 degrees beginning in 2006

Table 15. Summary of Enrollments in First Professional Degree Programs by Race/Ethnicity 1980-2012

Year	Black or African American ^a	% Change From Previous Year	Hispanic or Latino ^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		NA		36		NA	
1981 ^b	932	-1.4	787	-15.7	NA		38	5.6	NA	NA
1982 ^b	935	0.3	784	-0.4	NA		36	-5.6	NA	NA
1983 ^b	1,019	9.0	787	0.4	NA		42	16.7	NA	NA
1984 ^b	1,098	7.8	763	-3.0	NA		37	-11.9	NA	NA
1985	1,664	NA	927	NA	NA		42	NA	NA	NA
1986	1,647	-1.0	1,018	9.8	NA		39	-7.1	NA	NA
1987	1,729	5.0	1,055	3.6	NA		45	15.4	NA	NA
1988	1,891	9.4	1,089	3.2	NA		78	73.3	NA	NA
1989	1,983	4.9	1,096	0.6	NA		81	3.8	NA	NA
1990	2,103	6.1	1,118	2.0	NA		85	4.9	NA	NA
1991	2,395	13.9	1,055	-5.6	NA		98	15.3	NA	NA
1992	2,340	-2.3	1,088	3.1	NA		96	-2.0	NA	NA
1993	2,380	1.7	1,143	5.1	NA		128	33.3	NA	NA
1994	2,582	8.5	1,171	2.4	NA		128	0.0	NA	NA
1995	2,548	-1.3	1,150	-1.8	NA		151	18.0	NA	NA
1996	2,529	-0.7	1,140	-0.9	NA		147	-2.6	NA	NA
1997	2,632	4.1	1,130	-0.9	NA		150	2.0	NA	NA
1998	2,757	4.7	1,157	2.4	NA		160	6.7	NA	NA
1999	2,697	-2.2	1,086	-6.1	NA		156	-2.5	NA	NA
2000	3,132	16.1	1,255	15.6	NA		137	-12.2	NA	NA
2001	3,407	8.8	1,322	5.3	NA		179	30.7	NA	NA
2002	3,826	12.3	1,466	10.9	NA		168	-6.1	NA	NA
2003	4,183	9.3	1,605	9.5	NA		191	13.7	NA	NA
2004 ^c	3,784	—	1,691	—	NA		210	—	NA	NA
2005	3,703	-2.1	1,778	5.1	NA		234	11.4	NA	NA
2006 ^d	3,275	-11.6	1,888	6.2	NA		220	-6.0	NA	NA
2007	3,229	-1.4	2,044	8.3	NA		248	12.7	NA	NA
2008	3,395	5.1	2,186	6.9	NA		263	6.0	NA	NA
2009	3,581	5.5	2,278	4.2	NA		264	0.4	NA	NA
2010	3,711	3.6	2,369	4.0	NA		259	-1.9	NA	NA
2011 ^c	3,964	—	2,317	—	264		205	—	629	—
2012	4,226	6.6	2,537	9.5	594		238	16.1	968	53.9

^a US citizen or permanent resident

^b Totals for 1981 - 1984 are for enrollments in final 3 years of program only

^c Not able to calculate percent change due to change in how data are reported

^d Includes BS Pharmacy, BPharm, and Pharm.D.1 from 1980-2005. Includes only Pharm.D.1 beginning in 2006.

Table 16. Summary of Master of Science (MS) and Doctor of Philosophy (PhD) Fall 2012 Full-Time Enrollments by Gender and Discipline

Discipline	MS Degree				PhD Degree			
	M	F	T	% of MS Program Enrollments	M	F	T	% of PhD Program Enrollments
Medicinal Chemistry	45	59	104	10.4	479	318	797	24.4
Pharmacology	74	114	188	18.8	324	234	648	19.8
Social and Administrative Sciences	91	110	201	20.1	158	196	354	10.8
Pharmacy Practice	66	92	158	15.8	62	56	118	3.6
Pharmaceutics	123	165	288	28.8	507	548	1055	32.3
Other ^a	18	43	61	6.1	175	119	294	9.0
Total	417	583	1000		1705	1561	3266	

^a Includes Biophysics, Pharmaceutical and Biomedical Sciences, Clinical Psychopharmacology, Anatomy, Public Health, Biomedical Regulatory Affairs, and Nutrition and Exercise Physiology for MS degree. Includes Bioengineering/Biophysics/Biomedical & Medical Informatics, Clinical Experimental Therapeutics, Pharmaceutical & Biomedical Science, Nanomedicine, Pharmacodynamics, CMB/CHEM supervised students, Nutrition and Exercise Physiology, and Nanoscience for PhD degree.

Table 17. Fall 2012 Enrollments in PhD Programs by Type of Enrollment (Full-Time, Part-Time), Discipline, and Source of Previous Degree Earned^a

	US School		Canadian School		Foreign School		All Schools	
	Pharmacy	Non-Pharm	Pharm	Non-Pharm	Pharm	Non-Pharm	Pharm	Non-Pharm
Full-Time								
Medicinal Chemistry	30	361	0	3	170	179	200	543
Pharmacology	35	291	0	0	182	140	217	431
Social and Admin. Sciences	64	88	0	0	147	46	211	134
Pharmacy Practice	27	26	0	0	44	5	71	31
Pharmaceutics	22	260	1	1	369	190	451	451
Other	8	63	0	0	10	43	106	106
Total Full-Time	219	1,089	1	4	922	603	1,142	1,696
Part-Time								
Medicinal Chemistry	5	10	0	0	5	6	10	16
Pharmacology	15	10	0	0	0	5	15	15
Social and Admin. Sciences	4	21	0	0	3	1	7	22
Pharmacy Practice	1	1	0	0	0	0	1	1
Pharmaceutics	5	124	0	0	20	30	25	54
Other	19	10	0	0	17	23	36	33
Total Part-Time	49	76	0	0	45	65	94	141

^a Includes only those students for whom source of degree was reported

Of the 3,266 students enrolled full-time in Ph.D. degree programs in fall 2012, foreign students were also the largest group, accounting for 52.8 percent of the enrollees. Underrepresented minorities accounted for 7.4 percent of Ph.D. enrollees (black, 4.5 percent; Hispanic Americans, 2.4 percent; Native Hawaiian/Other Pacific Islander Americans, 0.3 percent; American Indians/Alaska Natives, 0.2 percent). Nearly 30 percent (29.8 percent) of Ph.D. enrollees were white Americans, Asian Americans accounted for 6.7 percent of the enrollees, and Americans of two or more races account for 0.5 percent. 2.8 percent of all full-time Ph.D. degree enrollees were reported as unknown. Over 40 percent (40.2 percent) of full-time and part-time students in Ph.D. programs held a professional

pharmacy degree, 8.7 percent of Ph.D. students held a professional pharmacy degree from a U.S. college or school of pharmacy, and 31.5 percent held a pharmacy degree conferred by a non-U.S. institution [Table 17].

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