

Academia: Clinical Practice

Background

Academia is an attractive option for pharmacists who enjoy working with students while engaging in clinical practice and/or in clinical research. With the increase in the diversity of academic positions, it can no longer be said that an academician's career is confined to the laboratory or classroom. Three distinct profiles are included in this series: Clinical Practice, Economic, Social, and Administrative Sciences, and Pharmaceutical Sciences. Each profile provides information on the similarities and differences in these three academic careers.

Clinical practice academicians often work with other health care professionals in a consultative capacity to select medication and develop therapeutic regimens for patients. In addition, many are involved with medication therapy management programs and services. Therefore, academicians have both a direct and an indirect impact on patient care.

The "Academia" category may be loosely defined as belonging to a university faculty, usually that of a college of pharmacy. However, clinical practice pharmacists may also hold academic positions in medical, veterinary, and other health care-related educational institutions. Positions may range from the dean of a college of pharmacy to a teaching clinical pharmacy position at an off-campus site or to a classroom setting.

Duties of an academic pharmacist may include administrative activities, scientific research, teaching professional student pharmacists, supervising research and teaching graduate students, speaking and/or publishing in scientific venues, student advising, and teaching student pharmacists through experiential practice sites.

In the 2006–2007 academic year, there were a total of 4,340 full-time pharmacy faculty at the nation's colleges and schools of pharmacy. (Source: http://www.aacp.org/Docs/MainNavigation/InstitutionalData/6676_2005-03.pdf. Accessed August 25, 2007.)

One respondent from Missouri noted, "I am working toward a profession-wide goal that I believe is worthwhile and necessary."

Characteristics

One hundred thirty-four individuals responded to the 2007 *APhA Career Pathway Evaluation Program* survey. Eighty-three percent of the respondents had an entry-level degree in pharmacy, with three fourths (76%) having earned a PharmD degree. Eighty percent of respondents had a residency with 12% having a fellowship. Seventeen percent reported an advanced degree (MA, MS, MBA, PhD, other). An additional 24% indicated certificate training of some kind.

Respondents' average age was 40 years old. More than two thirds (70%) of respondents were female. Income data show nearly half (49%) earn between \$80,000–\$100,000, while

26% earn \$100,000 or more per year. The average time worked per week was 50.6 hours, among the highest of all job areas surveyed. Respondents represented 34 states.

A large majority of respondents indicated that they were satisfied with their job, with 77% indicating “extremely satisfied” and 22% indicating “somewhat satisfied.” On a similar scale, respondents said that they felt the job was challenging, with 70% indicating “extremely challenging” and 30% indicating “somewhat challenging.”

Comments from many respondents included the appealing aspects of “clinical autonomy, teaching, and scholarly work.” A respondent from Alabama noted that “having direct patient care and helping shape student pharmacists” was exciting.

Insider’s Perspective

What aspects of the job are most appealing?

Reflecting the different type of activities involved in academia, 35% of respondents said the most appealing aspect of their work was its “flexibility.” Both “working with students” and “variety of activities” were listed by 12% of the respondents.

Teaching and working with both graduate and undergraduate students were favorably cited in comments, indicating the satisfaction level previously noted.

What aspects of the job are least appealing?

Among the least appealing aspects of an academic position was a 35% response on “management and administration.” “Workload and job stress” were listed by 27% of the respondents.

Working within a large organization like a university necessarily involves a considerable administrative load. “Ensuring that all aspects of the position receive adequate attention,” was noted by one Florida respondent. Just under 9% indicated their concerns for long hours, heavy workloads, and low salaries as least appealing aspects.

What advice should students and practitioners consider when selecting the option of Academia?

The most frequent factor cited by respondents (11%) was summed up by one respondent from Wisconsin who wrote, “Allow yourself ample pharmacy practice time [experience] before pursuing academia because you want to teach from your examples and experiences.” Other respondents included the thoughts of getting experience through the wide range of educational options including advanced degrees, certification, and residencies. In addition, 9% of the respondents noted that “money is not the most important factor in making a decision...look at future job satisfaction.”

Critical Factor Ratings

Interaction With Patients

Interaction with patients and the public was identified in the middle range, at 5.5. “The ability to multitask [is important]...seeing patients...and teaching activities all at the same time.” However, a significant variance is noted because some respondents probably are clinical faculty dealing with student pharmacists in a clinical setting while others are more research oriented and less likely for such encounters. One quarter (25%) of all respondents’ time is spent in patient care services.

$$= 5.5$$
$$\sigma = 2.5$$



Conducting Physical Assessments

Relatively little academics’ time is spent in conducting physical assessments. Given the need for multitasking numerous activities, this is likely a reflection of the specific job responsibilities of academic pharmacy clinical practice overall.

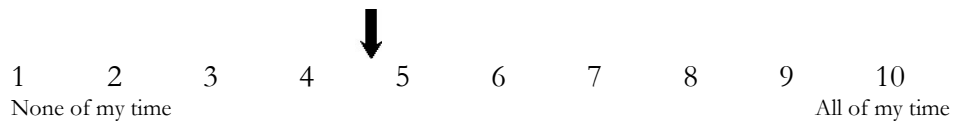
$$= 3.0$$
$$\sigma = 2.2$$



Interpreting Laboratory Values

Clinical practice in an academic center tends to provide the opportunity for access to patient charts and laboratory values. Even with this accessibility, respondents were mid-range in the use of laboratory values.

$$= 4.7$$
$$\sigma = 2.7$$



Continuity of Relationships

Academic pharmacists responded with a mid-range 5.2 ranking of the continuity with “patients or consumers,” indicating that many are not involved in a long-term or continuing relationship with patients. This may illustrate the focus of the respondents with pharmacy or graduate students, as well as the greater involvement with hospitalized, short-term care patients. Some long-term relationships can develop where the practice site is involved with outpatient clinics.

$$= 5.2$$
$$\sigma = 3.2$$



Helping People

“Direct” versus “indirect” help is the crux of this question and, at a 6.0 rating, academic clinical practice pharmacists are in the mid-range. The clinical academic pharmacist helps individual people directly slightly more than indirectly.

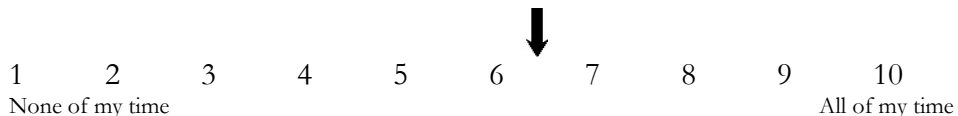
= 6.0
σ = 2.9



Collaboration With Other Professionals

Collaboration with other professionals ranked higher with a 6.4 rating, indicating that academic pharmacists collaborate frequently with non-pharmacist professionals. Again, this could be in conjunction with a clinic-based practice or with a research activity, in either case, with health care professionals or with research-based academicians. One respondent from Rhode Island summed up the previous two factors by expressing pleasure in “working with patients and the interdisciplinary team.”

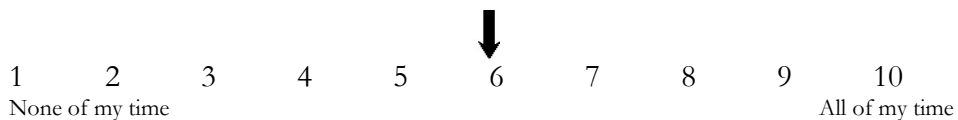
= 6.4
σ = 2.5



Educating Other Professionals

To a substantial degree, academicians spend their time involved with educating other professionals. This is not surprising, since many are involved in university, hospital-based, and/or ambulatory care interdisciplinary educational efforts involving patient care and/or research endeavors.

= 5.9
σ = 2.9



Variety of Daily Activities

One of the higher ratings (7.8) reflects the academic pharmacists’ role as a varied one. One Iowa respondent enjoyed the “variation, challenges of teaching, research, clinical practice, and supervising multiple people.” Responsibilities include both staff and administrative functions.

= 7.8
σ = 2.2



Multiple Task Handling

Another higher rating at 8.2, multitasking is a nearly universal aspect of these positions. While “teaching student pharmacists” might seem to be the common denominator in academia, a myriad of other activities lead to the previously mentioned variety and need for the academic clinical practice pharmacist to juggle several functions simultaneously.

= 8.2
 $\sigma = 1.9$



Problem Solving

The response on this question indicates the need for the academic pharmacist to seek out new solutions for new problems versus being able to rely on previously useful solutions.

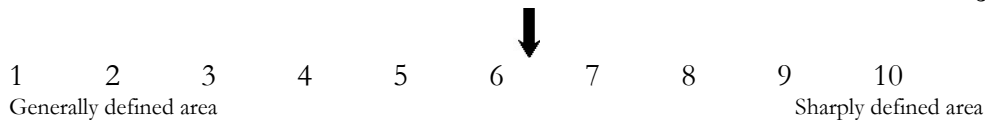
= 6.5
 $\sigma = 1.7$



Focus of Expertise

Perhaps somewhat surprisingly, academic clinical practice pharmacists responding to this survey indicate only a slight tendency toward having sharply defined areas of expertise versus a broader area of expertise. While respondents indicated the need for additional education and training in this field, the focus of their work is spread over a broader than expected range of activities and knowledge.

= 6.3
 $\sigma = 2.2$



Innovative Thinking

A relatively high rating of 7.5 in this area suggests that academic clinical practice pharmacists encounter a somewhat higher need for innovative solutions and thinking about pharmacy issues, leading to new ideas in general pharmacy practice, as well as in the academic setting.

= 7.5
 $\sigma = 1.8$



Applying Scientific Knowledge

Not surprisingly, clinical practice academicians rely heavily on the application of scientific knowledge in their practice activities whether in teaching, research, or providing expertise for patient care.

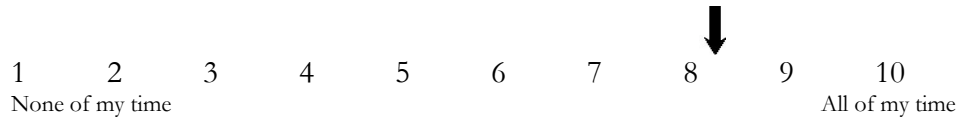
$$= 7.2$$
$$\sigma = 2.0$$



Applying Medical Knowledge

Relative to the application of scientific knowledge, academic clinicians apply slightly more medical knowledge in their practice. Perhaps this is related to the collaborations they have with physicians, medical students, and other health care professionals.

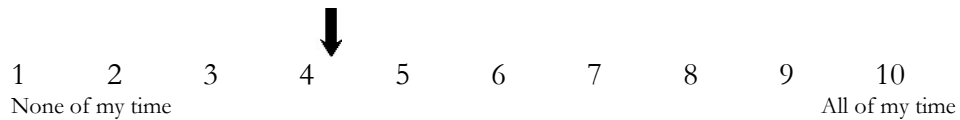
$$= 8.2$$
$$\sigma = 1.8$$



Creating New Knowledge by Conducting Research

The slightly lower than mid-range ranking of 4.2 for creating new knowledge by conducting research is somewhat surprising. One might expect a higher ranking for research as an integral component of their practice; however, many clinical practice faculty have clinic responsibilities that may or may not include a research component. Eleven percent of respondents' time is spent on research activities.

$$= 4.2$$
$$\sigma = 2.0$$



Management/Supervision of Others

A mid-range response indicates that some time is devoted by clinical practice academicians to management and supervisory responsibilities of others. Those in management roles, deans, and department heads are at the higher end of the range while others have a lesser level of such duties.

$$= 5.4$$
$$\sigma = 2.5$$



Management/Supervision of a Business

Many of the respondents indicated that they spend no time managing a business. A few who are in administrative roles rated this factor higher. Only 6% of respondents' time is spent on business-related activities.

= 2.8
 $\sigma = 2.2$



Pressure/Stress

An upper mid-range rating of 7.0 indicates that academics have a slight tendency toward experiencing stress or pressure in their work. Some stress is associated with publishing articles in professional journals and obtaining funding for research. One respondent from Utah indicated that the position is “stressful, [because the] workload is highly variable throughout the year.” Balancing time across multiple responsibilities adds to this factor.

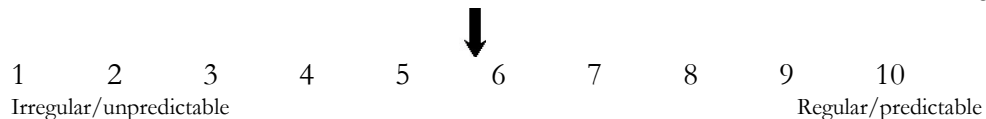
= 7.0
 $\sigma = 1.9$



Work Schedule

Clinical practice academics responding to this survey are around the mid-point of the range of unpredictable versus predictable work scheduling. One respondent from Illinois stated, “There is also work that comes home with you. I do not ‘officially’ work holidays or weekends, but sometimes there is work that needs to be completed at that time.”

= 5.8
 $\sigma = 2.6$



Part-Time Opportunities

Academic settings infrequently offer part-time work opportunities. However, this does vary by institution and the type of academic position.

= 3.8
 $\sigma = 2.9$



Job-Sharing Opportunities

Job sharing is not a common practice in academic institutions, which is reinforced by the low ranking of this factor.

= 2.9
 $\sigma = 2.5$



Exit/Re-entry Opportunities

Exit/re-entry opportunities rank low to mid-range within the academic clinical practice area.

= 3.9
 $\sigma = 2.6$



Parental Leave Opportunities

Parental leave opportunities ranked high in the areas of work-related options. Most institutions provide the opportunity for parental leave.

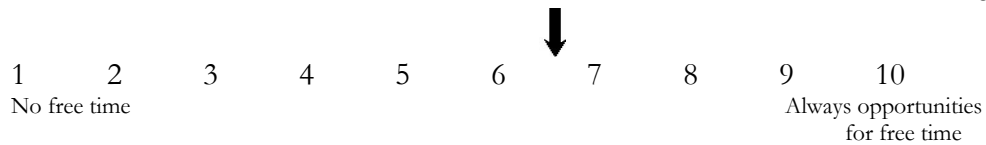
= 8.1
 $\sigma = 2.6$



Leisure/Family Time

Clinical practice respondents reported varying experiences regarding time for leisure and family activities. Some said they have adequate time for these activities, while others claimed to have very little.

= 6.6
 $\sigma = 2.2$



Job Security

Academic pharmacists enjoy a high level of job security, ranking highly across all careers surveyed at 8.3. Employment contracts, tenure, and academic year appointments contribute to this stability.

= 8.3
 $\sigma = 1.6$



Opportunities for Advancement

To a relatively high degree, academicians enjoy opportunity for advancement in their practice situations. Universities and hospitals are large organizations with constantly changing and widely varying personnel needs, leading to openings and promotion opportunities both within the pharmacy areas and beyond. There is a hierarchy within academia that includes the following positions: lecturers, clinical instructors, post-doctoral fellows, assistant professors, associate professors, full professors, assistant deans, associate deans, and deans. In addition, newer positions appoint directors of specific business/academic units within an institution, such as director of alumni relations.

= 7.9
 $\sigma = 2.0$



Opportunities for Leadership Development

The 8.1 response indicates that academic clinical practice pharmacists have ample opportunities to develop their leadership potential. Such opportunities could be within the college of pharmacy itself, within the greater university setting, nationally within the specialty field (e.g., infectious disease), or within professional associations (e.g., APhA).

= 8.1
 $\sigma = 2.0$



Community Prestige

Clinical practice academicians, generally as employees of a university, are perceived as prestigious members of the community. Over many years of a national public opinion poll, pharmacists in general have been highly respected by the public, therefore it is not surprising that pharmacists employed by a prestigious institution, such as a college or university, would be even more highly respected. Indeed, universities are often looked to for role models.

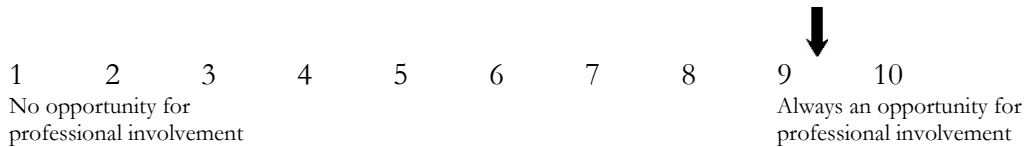
= 7.8
 $\sigma = 2.1$



Professional Involvement

The highest ranking by the 134 participants in this survey is their high level of opportunity to participate in professional association meetings and similar events within the profession of pharmacy. Accordingly, it is not unusual to see an academically based pharmacist in a leadership position in a state or national professional association. Some universities provide faculty members incentives for such “community” service involvement.

= 9.3
 $\sigma = 1.4$



Income

Respondents fell slightly above the mid-range of being properly versus not properly compensated for their professional services. It is not uncommon, however, for faculty members to be expected, even encouraged, to seek additional outside sources of income (e.g., through consulting projects) that would supplement their faculty salary.

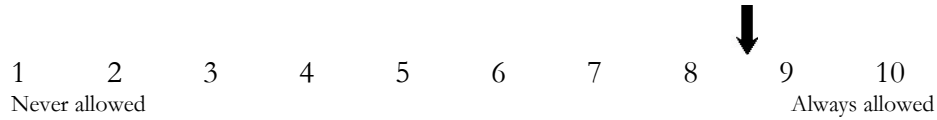
= 6.4
 $\sigma = 2.5$



Self-Worth

One of the higher rankings by clinical practice academicians is for opportunities that create self-worth. An academic pharmacist is doubly interested in creating positive outcomes, both as a pharmacist and as a teacher of student pharmacists. College and university settings encourage the advancement of personal value and the full development of the potential of student and teacher alike.

= 8.6
 $\sigma = 1.5$



Future Focus

Not surprisingly, academicians are highly focused on the future of the profession and health care. Activities such as teaching and research are concerned with advancing knowledge and understanding the latest scientific information; and teachers learn themselves from the piercing questions of students.

= 7.7
 $\sigma = 1.6$



Professional Prestige

This area receives a high rating (8.8) among respondents, indicating a high level of prestigious exposure within the pharmacy profession. Former students, as well as other pharmacists, appropriately hold faculty in high esteem.

= 8.8
 $\sigma = 1.6$



Unique Practice Environment

Clinical practice respondents indicated a relatively high level of uniqueness in their practice settings. A clinical pharmacist might be in a fairly typical hospital or ambulatory setting or in a unique advanced care practice setting.

= 7.6
 $\sigma = 1.9$



Advanced Degree

There is significant variation whether graduate degrees and other educational training/experiences are required, depending on various positions within academe. Seventeen percent of those responding to the survey have such degrees.

= 5.5
 $\sigma = 3.6$



Entrepreneurial Opportunity

Not surprisingly, faculty members indicate a lower level of entrepreneurial opportunity in their practice settings. A separate consulting activity might present such an opportunity.

= 4.6
 $\sigma = 3.6$



Additional Training

The highest rating (9.0) indicates a nearly universal recognition that additional training beyond the highest degree held is a requirement in the academic setting. The demographics of this group is indicative, with a full 80% having completed a residency and other high percentages showing additional, perhaps overlapping, types of advanced training.

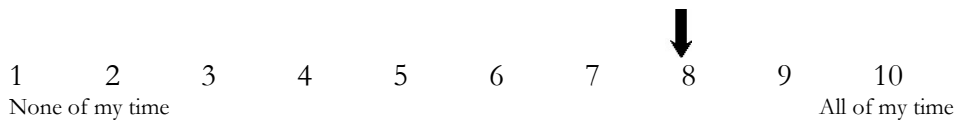
= 9.0
 $\sigma = 1.7$



Interacting With Colleagues

Clinical practice academicians tend to interact with coworkers on a regular basis through committee work and group teaching. However, time in the clinic and research may be done alone or with a colleague.

= 7.9
 $\sigma = 1.8$



Travel

Respondents for the most part have lower needs to travel for their day-to-day activities. However, attending state, national, or international meetings does provide some travel opportunities.

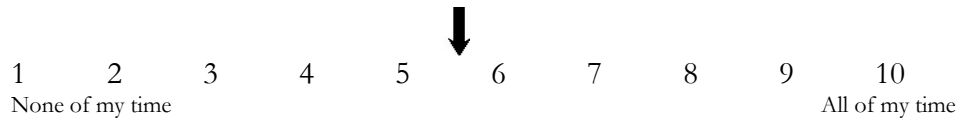
= 4.1
 $\sigma = 2.1$



Writing

Respondents were in the mid-range regarding writing. Some respondents focused on the preparation of publications while others focused on specific project reports that were required for their position.

= 5.7
 $\sigma = 2.0$



Working With Teams

Clinical practice academicians tend to have more team-related assignments because they often team teach clinical courses.

= 6.6
 $\sigma = 2.2$



“On Call”

Respondents indicated a low “on call” need for the positions.

= 2.7
 $\sigma = 2.7$



Work on Holidays

As noted under the work schedule factor, academicians tend not to work on holidays at their place of employment. However, as one participant stated, “Bringing work home for the holidays is not uncommon.”

= 2.1
 $\sigma = 1.8$



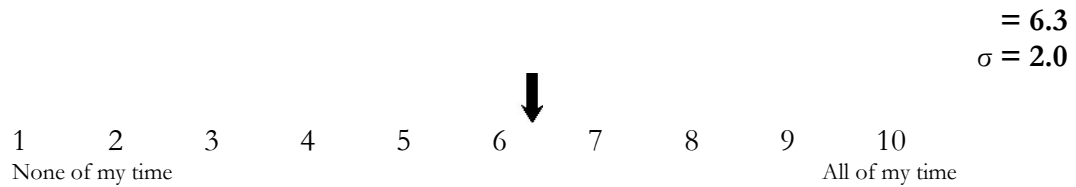
Work on Weekends

This is similar to the statement above although it appears that more work is required on a weekend versus holiday. Even with this said, working on weekends is rated very low on the scale.



Presentations

Presentations are a given for most in the academic practice environment. What differs is the extent that the person is involved as a course coordinator for administrative functions or actual lecturing. Most respondents indicated that this was one of the more appealing aspects of the position. Teaching was listed as the highest amount of time (30%) used in a given week.



Mean Scores for Critical Factors

1. Interaction With Patients	5.5
2. Conducting Physical Assessments	3.0
3. Interpreting Laboratory Values	4.7
4. Continuity of Relationships	5.2
5. Helping People	6.0
6. Collaboration With Other Professionals	6.4
7. Educating Other Professionals	5.9
8. Variety of Daily Activities	7.8
9. Multiple Task Handling	8.2
10. Problem Solving	6.5
11. Focus of Expertise	6.3
12. Innovative Thinking	7.5
13. Applying Scientific Knowledge	7.2
14. Applying Medical Knowledge	8.2
15. Creating New Knowledge by Conducting Research	4.2
16. Management/Supervision of Others	5.4
17. Management/Supervision of a Business	2.8
18. Pressure/Stress	7.0
19. Work Schedule	5.8
20. Part-Time Opportunities	3.8
21. Job-Sharing Opportunities	2.9
22. Exit/Re-entry Opportunities	3.9
23. Parental Leave Opportunities	8.1
24. Leisure/Family Time	6.6
25. Job Security	8.3
26. Opportunities for Advancement	7.9
27. Opportunities for Leadership Development	8.1
28. Community Prestige	7.8
29. Professional Involvement	9.3
30. Income	6.4
31. Benefits (vacation, health, retirement)	8.9
32. Geographic Location	6.9
33. Autonomy	8.4
34. Self-Worth	8.6
35. Future Focus	7.7
36. Professional Prestige	8.8
37. Unique Practice Environment	7.6
38. Advanced Degree	5.5
39. Entrepreneurial Opportunity	4.6
40. Additional Training	9.0
41. Interacting With Colleagues	7.9
42. Travel	4.1
43. Writing	5.7
44. Working With Teams	6.6
45. "On Call"	2.7
46. Work on Holidays	2.1
47. Work on Weekends	3.2
48. Presentations	6.3

References

Schommer JC, Brown LM, Sogol EM. *Career Pathway Evaluation Program 2007 Pharmacist Profile Survey*. June 2007.

American Association of Colleges of Pharmacy. Academic Pharmacy's Vital Statistics. April 2007. www.aacp.org

Professional Organizations

Accreditation Council for Pharmacy Education (ACPE)
20 North Clark Street, Suite 2500 Chicago, IL 60602
Tel: 312-664-3575 Fax: 312-664-4652
www.acpe-accredit.org

American Association of Colleges of Pharmacy (AACP)
1426 Prince Street, Alexandria, VA 22314
Tel: 703-739-2330 Fax: 703-836-8982
www.aacp.org

American Association of Pharmaceutical Scientists (AAPS)
2107 Wilson Blvd., Suite 700, Arlington, VA 22201
Tel: 703-243-2800 Fax: 703-243-9650
www.aaps.org

American College of Clinical Pharmacy (ACCP)
3101 Broadway, Suite 650, Kansas City, MO 64111
Tel: 816-531-2177 Fax: 816-531-4990
www.accp.com

American Foundation for Pharmaceutical Education (AFPE)
One Church Street, Suite 202, Rockville, MD 20850
Tel: 301-738-2160 Fax: 301-738-2161
www.afpenet.org

American Pharmacists Association (APhA)
1100 15th Street NW, Suite 400, Washington, DC 20005
Tel: 800-237-APhA Fax: 202-783-2351
www.pharmacist.com

American Society of Health-System Pharmacists (ASHP)
7272 Wisconsin Avenue, Bethesda, MD 20814
Tel: 301-657-3000
www.ashp.org

NOTE: For further pharmacy organization information, please visit the American Association of Colleges of Pharmacy Web site at www.aacp.org and click on the "Related Pharmacy Organizations" link.