

# Clinical Specialists

## Background

An individual with a pharmacy degree and license can follow a great number of career paths. In addition to more traditional roles, there are many other specialty pharmacists bringing unique expertise and value to the health care system. Many of these pharmacists specialize in practice areas similar to medical specialties, and some have created unique skills and opportunities. Pharmacist specialties include, but are not limited to the following areas:

Adult Medicine	Neurology
Ambulatory Care	Nuclear/Radiopharmacy*
Cardiology	Nutrition Support
Compounding*	Oncology
Critical Care	Pediatrics
Diabetic Care	Poison Control
Hematology/Oncology	Psychopharmacy
Hospice	Sports Medicine
Immunization Services	Transplant
Internal Medicine/General Practice	Veterinary Pharmacy
Long-Term Care/Geriatrics*	
Nephrology	

*\*Separate profile available.*

Many pharmacists have obtained additional training in the specialty field or have gained extensive on-the-job experience and have gradually migrated into the specialty field. Most started in traditional pharmacy practice and then pursued the specialty practice area for which they had a passion.

In most cases, specialty pharmacists do not hold a separate license beyond their pharmacist license. There are opportunities for pharmacists to become certified or credentialed to provide specialty services upon achieving adequate experience and, in some cases, passing an exam. While these credentials are generally not required to practice, it documents to employers, peers, and the public that the pharmacist possesses the knowledge and skills to provide specialty services.

The mission of the Board of Pharmaceutical Specialties (BPS) is to recognize specialty practice areas, define knowledge and skill standards for recognized specialties, and evaluate the knowledge and skills of individual pharmacist specialists through a certification exam. The BPS offers specialty certification in nuclear pharmacy, nutrition support pharmacy, oncology pharmacy, pharmacotherapy, and psychiatric pharmacy.

The National Institute for Standards in Pharmacist Credentialing (NISPC) offers disease state management certification exams for anticoagulation, asthma, diabetes, and dyslipidemia. The NISPC exams are standardized assessment tools designed to measure the knowledge and judgment of pharmacists providing disease state management services to patients.

Credentials may be offered by other organizations, depending on the specialty. For example, the American Association of Poison Control Centers (AAPCC) offers a certification exam for specialists in poison information. The exam is offered to pharmacists and other health professionals who have met minimum practice requirements. Regional poison centers are required to maintain a minimum number of certified specialists on staff. The American Academy of Clinical Toxicology (AACT) offers a credentialing process and, upon successful completion of a certification exam, awards diplomat status in the American Board of Applied Toxicology (ABAT), which is an organization for the unique purpose of fostering the development of clinical toxicology among the non-physician, non-veterinarian members of the AACT. While credentials are important for pharmacists practicing in specialty areas, work must continue to address competition among health care professionals and compensation for services.

### **Characteristics**

One hundred twenty-four pharmacist clinical specialists responded to the 2007 *APhA Career Pathway Evaluation Program* survey. Sixty-nine percent of respondents held an entry-level pharmacy degree; 68% held the PharmD degree. Twenty-one percent indicated that they also had a non-pharmacy bachelor's degree and 3% indicated an advanced degree (MA, MS, MBS, PhD, or other). Sixty-nine percent had been through a residency program, 32% had been through a certificate training program, and 37% reported having been through some form of other training.

Respondents' average age was 37 years old. Three quarters (75%) of respondents were female. Income data show just under half (44%) earn between \$80,000–\$100,000, while 51% earn \$100,000 or more per year, with 1% earning greater than \$170,000. The average time worked per week was 50.6 hours. Respondents represented 37 states.

An overwhelming majority of respondents indicated that they were satisfied with their job, with 70% indicating “extremely satisfied” and 27% indicating “somewhat satisfied.” Similarly, most respondents indicated that they felt the job was quite challenging, with 57% indicating “extremely challenging” and 36% indicating “somewhat challenging.”

### **Insider's Perspective**

#### **What aspects of the job are most appealing?**

Because of the great variety of specialty positions, work environments, duties, and responsibilities, the aspects of the jobs that were most appealing and least appealing in some instances overlap. What is true for one specialty practice is not necessarily true for other practices.

With that said, one of the most appealing aspects of these jobs, cited by 23% of pharmacist clinical specialists, was direct patient care. Many pharmacists working in specialty areas have a great deal of patient contact, whereas others have minimal contact with patients and work primarily with other health providers. Respondents also indicated that they spend 45% of their time on patient care services.

Twelve percent cited interaction with others as one of the most appealing aspects of their jobs. Pharmacist clinical specialists often work in settings with challenges that vary from day to day, thereby presenting opportunities to learn and grow professionally. Another 11% of respondents cited autonomy as one of the most appealing aspects of their work.

One Texas respondent summed the feelings of many when stating, “I enjoy interacting with physicians, nurses, patients, students/residents, and may other pharmacists on a daily basis.”

### **What aspects of the job are least appealing?**

Administration (bureaucracy) and paperwork were both cited by 13% of pharmacist clinical specialists as one of the least appealing aspects of their jobs. These pharmacists are very satisfied with the work they perform, but do not enjoy the record keeping that needs to be completed to substantiate their services or to quantify outcomes.

Long hours, staffing concerns, and heavy workload were each cited by 10% of the respondents. Notably, pharmacist clinical specialist positions are dependent on patient load and other factors that are beyond control of the pharmacist. One pharmacist from North Carolina commented that there is “too much work for one person to accomplish all tasks.”

### **What advice should students and practitioners consider when selecting the option of becoming a clinical specialist?**

Ten percent of pharmacist clinical specialists cited the importance of getting continual training. As in any specialty practice, a certain level of expertise is expected of the practitioner. Continuing education and training is important to succeed in this environment. One pharmacist clinical specialist from Alabama commented, “[These positions] require continuous studying/staying on top of current guidelines and literature.”

Some specialty pharmacists work in fast-paced environments requiring quick decisions, whereas others work in environments that are more structured and self-paced. The demands of the work environment should be considered when choosing a career path or practice that is suited to the pharmacist’s individual preference.

One respondent from Minnesota indicated that it is “necessary to have good communication skills and willingness to spend many extra hours in the workplace as well as outside the workplace, reading, learning, etc.”

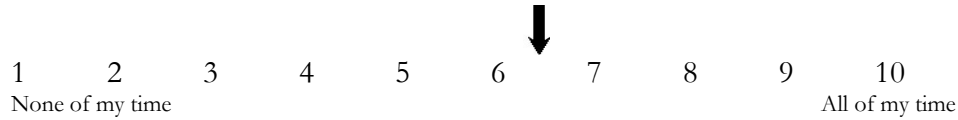
Another pharmacist from Iowa said students should be willing to take advantage of different opportunities, noting, “make sure the practice environment is right for you—which includes the hours and location.”

## Critical Factor Ratings

### **Interaction With People**

Interaction with people was cited by some pharmacist clinical specialists as the most appealing aspect of their work. As noted earlier, respondents reported that they spend 45% of their time in patient care areas.

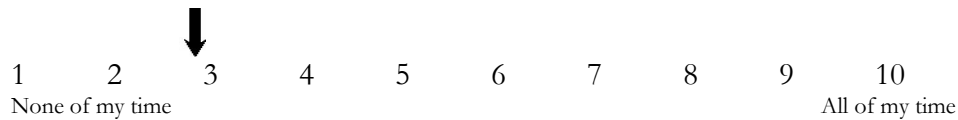
= 6.4  
 $\sigma = 2.2$



### **Conducting Physical Assessments**

Some of the pharmacist clinical specialist positions will require much interaction with patients and involve conducting physical assessments, whereas other positions will lack these activities altogether.

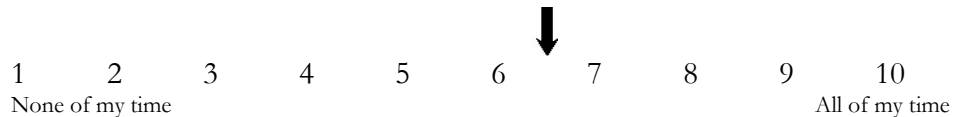
= 2.8  
 $\sigma = 2.2$



### **Interpreting Laboratory Values**

It appears that many of the respondents have access to patient laboratory values. The difference in response between conducting physical assessments and interpreting laboratory values is striking. Notably, clinical specialists rated this factor higher than any other group in the survey.

= 6.5  
 $\sigma = 2.2$



### **Continuity of Relationships**

The extent to which specialty pharmacists have ongoing or long-term relationships with patients varies by practice setting. For example, pharmacist clinical specialists in pediatrics may develop sustained relationships with children who have a chronic disease, whereas those in critical care may have contact with a patient for only a limited period of time. This range of continuity is reflected in the average being near the midpoint.

= 5.6  
 $\sigma = 3.3$



### Helping People

A pharmacist working in a poison information center or in an intensive care unit, for example, will have a direct impact on an individual’s well being, whereas a pharmacist focused primarily on pharmacokinetics research will have more of an indirect impact. One Colorado practitioner noted, “You have the ability to work with a wide range of patients, pharmacists, and other health professionals.”

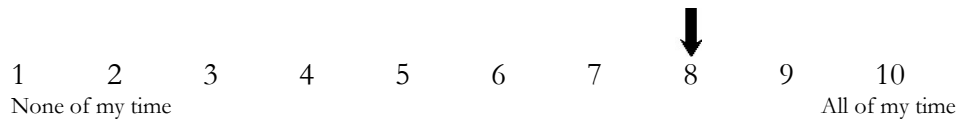
= 7.4  
 $\sigma = 2.3$



### Collaboration With Other Professionals

As mentioned previously, some specialties involve extensive patient interaction whereas others involve extensive health professional interaction. Overall, this factor ranked near the top among these respondents. One pharmacist from Georgia stated enjoyment in “working as a team with other providers.”

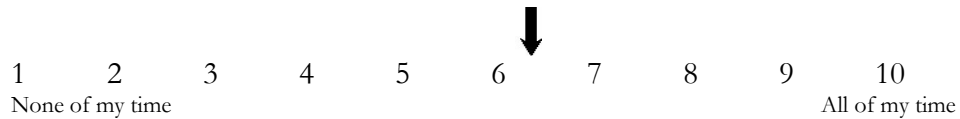
= 8.0  
 $\sigma = 1.8$



### Educating Other Professionals

Pharmacist clinical specialists spend time educating other health professionals. The response was mid-range for this critical factor. In addition, many pharmacists in these positions are often required to share their expertise with other members of the health care team.

= 6.3  
 $\sigma = 2.1$



### Variety of Daily Activities

The day-to-day workload of a pharmacist clinical specialist often depends on the medication-related needs of patients. As a result, there is a good deal of variation in their practices.

= 6.9  
 $\sigma = 2.1$



### Multiple Task Handling

There was fairly good agreement among pharmacist clinical specialists, regardless of practice setting, that they often deal with more than one task at a time. The needs of patients and other health professionals often demand prompt attention.

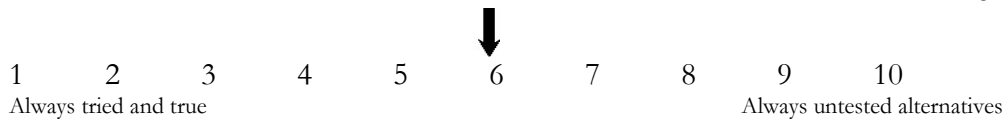
= 7.8  
 $\sigma = 1.9$



### Problem Solving

Pharmacist clinical specialists responding to the survey indicated that they rely fairly equally on tried-and-true methods as well as untested alternatives to problem solving, scoring a mid-range 5.9. The extent to which the practice involves the use of algorithms or protocols and the variability of the patient population will influence the general approach to problem solving.

= 5.9  
 $\sigma = 1.6$



### Focus of Expertise

Not surprisingly, pharmacist clinical specialists indicated that they lean to the side of having a sharply defined area of expertise. Regardless of practice setting, there will always be general drug-related issues to handle in addition to those issues requiring specialized expertise.

= 7.1  
 $\sigma = 2.3$



### Innovative Thinking

Some specialty practice settings are well established and have highly defined expectations, duties, and responsibilities, whereas others will require innovative thinking to help shape and define the specialty practice. Pharmacy specialists tended to agree that innovative thinking is used in their practice setting.

= 6.8  
 $\sigma = 1.8$



### Applying Scientific Knowledge

Pharmacist clinical specialists spend a significant portion of their time applying scientific knowledge in their area of expertise, giving this factor a rating of 7.5. The specialized training and expertise pays dividends in being able to apply this knowledge as an important part of their work.

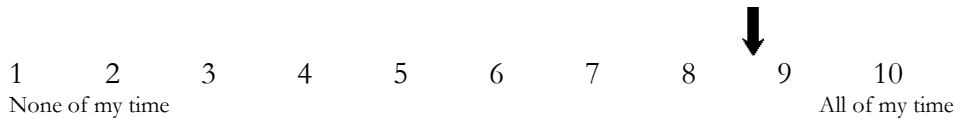
= 7.5  
 $\sigma = 2.1$



### Applying Medical Knowledge

Pharmacist clinical specialists spend an even greater amount of time applying medical knowledge in their field. This ranking was the second highest for this group.

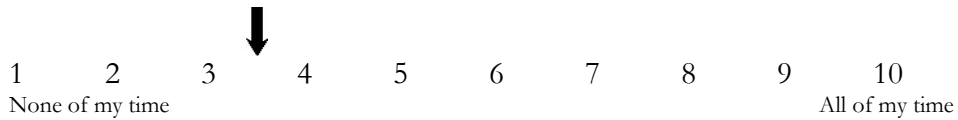
= 8.7  
 $\sigma = 1.3$



### Creating New Knowledge by Conducting Research

Pharmacist clinical specialists spend most of their time practicing in their area of expertise, providing services and caring for patients. There is opportunity to conduct research but it occupies only 3% of their time.

= 3.5  
 $\sigma = 2.2$



### Management/Supervision of Others

A low mid-range response from participants shows that this group is not very involved in the management and supervisory responsibilities of others. Depending on the practice setting, specialty pharmacists generally work with peers and other health professionals. Their level of supervision of others depends upon staffing levels and extent of teaching conducted at their institution.

= 4.2  
 $\sigma = 2.4$



### Management/Supervision of a Business

Many of the respondents indicated that they spend little to no time managing a business. Only 4% of respondents' time is spent on business-related activities.

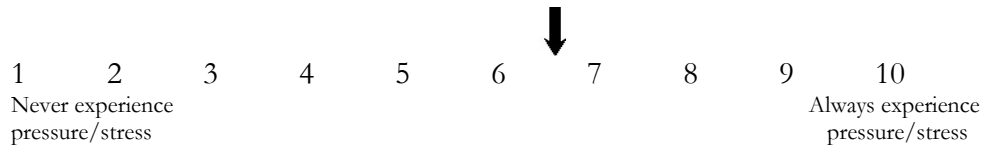
= 2.5  
 $\sigma = 1.9$



### Pressure/Stress

Respondents indicated that they experience pressure/stress at the mid-range level. All pharmacists experience some stress in their workday, which comes with responsibility. The types of pressures and stresses vary depending upon the practice environment.

= 6.6  
 $\sigma = 2.1$



### Work Schedule

Pharmacist clinical specialists often work regular and predictable schedules. There may be "on call" responsibilities, rotating shifts in some situations, and at times long workdays, which are predictable.

= 6.9  
 $\sigma = 2.7$



### Part-Time Opportunities

Generally, it is difficult to specialize and become an expert in a clinical area on a part-time basis. After becoming a specialist, pharmacists can take on part-time and consultant opportunities.

= 4.0  
 $\sigma = 3.0$





### Job-Sharing Opportunities

Job-sharing is not a common practice in this field as reinforced by the low range ranking of this factor.

$$= 3.0$$
$$\sigma = 2.5$$



### Exit/Re-entry Opportunities

Exit/re-entry opportunities are mid-range for this group.

$$= 4.4$$
$$\sigma = 2.8$$



### Parental Leave Opportunities

Parental leave opportunities ranked higher than others in the areas of work-related options. Most employers provide the opportunity for parental leave.

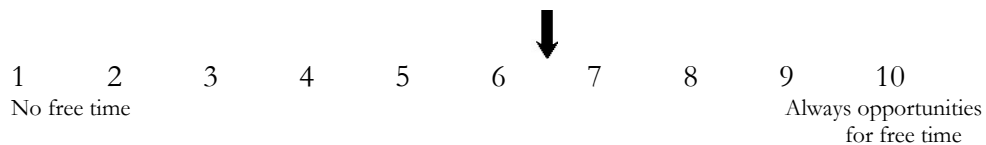
$$= 7.6$$
$$\sigma = 2.6$$



### Leisure/Family Time

A regular and predictable work schedule allows individuals to enjoy free time for leisure/family activities. Not unique to specialists, keeping up with the literature and other professional development activities can take away from this free time, but generally can be managed effectively and many times done at home.

$$= 6.5$$
$$\sigma = 2.3$$



### Job Security

Pharmacists who specialize have the added benefit of their experience and expertise adding to the security of their positions. However, as the health system continues to change, increased pressures for accountability of clinical services continues to be a challenge the profession must tackle.

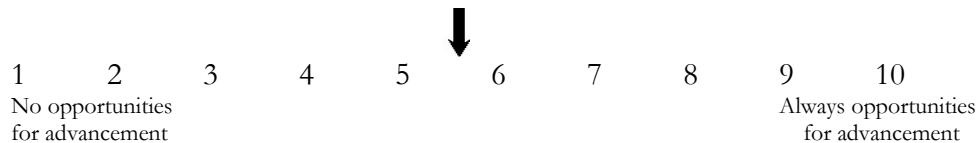
= 8.2  
 $\sigma = 1.5$



### Opportunities for Advancement

Pharmacist clinical specialists had mixed opinions on opportunities for advancement. Practice setting, academic affiliation, and career path all can be factored into the perceived opportunity for advancement.

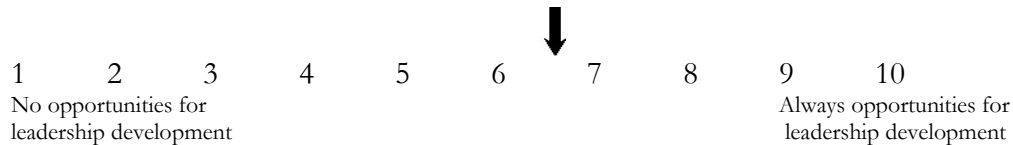
= 5.7  
 $\sigma = 2.7$



### Opportunities for Leadership Development

Pharmacist clinical specialists indicated a mid-range response of 6.6 regarding opportunities for leadership development.

= 6.6  
 $\sigma = 2.7$



### Community Prestige

Pharmacists are well-respected health professionals. The extent to which their practice directly influences their prestige in the community depends on the visibility of their role to the general public. If recognized as being a “specialist” within the pharmacy profession, it may add to their prestige in the community.

= 6.6  
 $\sigma = 2.2$



### Professional Involvement

Active involvement in pharmacy meetings and events creates opportunities for professional development and the sharing of ideas and knowledge among peers. The extent to which a pharmacist gets involved is largely a personal decision. Pharmacist clinical specialists indicated that the opportunity exists for professional involvement in such events. These specialists are often invited to speak on topics in their area of expertise. In addition, they are typically involved in regional or national meetings of associations or societies in their specialty area.

= 7.6  
 $\sigma = 2.3$



### Income

Pharmacist salaries have increased significantly in the recent past, largely as a result of the pharmacist shortage. Pharmacist salaries in the institutional setting, where most pharmacist clinical specialists work, lag behind salaries in the community setting. Despite this, pharmacist clinical specialists indicated that they were properly compensated.

= 7.2  
 $\sigma = 2.6$



### Benefits (vacation, health, retirement)

Benefits often go hand-in-hand with salary. Most of the respondents indicated that they receive a better than average benefits package. This factor tied as the second-highest rating by these pharmacists.

= 8.3  
 $\sigma = 1.8$



### Geographic Location

The highly focused practices of pharmacist clinical specialists may limit geographic possibilities where other traditional opportunities exist. While most urban areas have positions, there is a growing need in rural areas for clinical specialists.

= 6.5  
 $\sigma = 3.3$



### Autonomy

As a licensed professional, pharmacists have been granted certain authorities and accepted certain responsibilities; as a result, pharmacists generally have autonomy within the professional scope of practice. Pharmacists in this setting indicated an upper range rating of 8.2 for this factor.

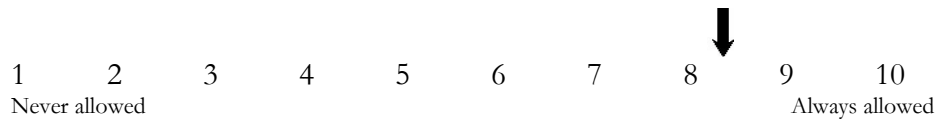
$$= 8.2$$
$$\sigma = 1.6$$



### Self-Worth

Pharmacists practicing in clinical specialties are often pursuing careers that fulfill personal and professional ideals. There is general agreement among these pharmacists that their practice creates self-worth. This factor tied with the second-highest rating of the respondents.

$$= 8.3$$
$$\sigma = 1.6$$



### Future Focus

Depending on the position, specialty pharmacists can be on the cutting edge of science in their respective disciplines. Although day-to-day decisions are based on the present, the underlying focus for many of these pharmacists is on what's new and what's on the horizon.

$$= 6.9$$
$$\sigma = 2.0$$



### Professional Prestige

Pharmacists practicing in a clinical specialty have opportunities to make a name for themselves through achievements in practice, research, or other scholarly activities. Pharmacists in specialty practice are often called upon to share their expertise with other pharmacists through continuing education programs or other venues. As a result, they become better known and often hold a more prestigious position in the profession.

$$= 7.0$$
$$\sigma = 2.4$$



### Unique Practice Environment

The practice environment of pharmacist clinical specialists varies by specialty. More often than not, these pharmacists are working away from traditional pharmacy practice settings. However, clinical specialists in traditional pharmacy practice are having tremendous impact on patient care.

= 7.8  
 $\sigma = 2.0$



### Advanced Degree

An advanced degree is not necessarily required to practice in a clinical specialty. However, additional training through residency or fellowship programs or extensive practice experience is required to achieve the level of competence needed to function as a specialist. There was a broad range of response to this question among practicing pharmacist clinical specialists. This may represent a view that the education and training required to obtain a PharmD degree is necessary or may reflect the need for other types of additional training.

= 4.5  
 $\sigma = 3.7$



### Entrepreneurial Opportunity

The practice of a pharmacist clinical specialist is less entrepreneurial than many others. There was variability among responses from pharmacists indicating that the practice of some of these clinical specialists is more entrepreneurial in nature.

= 2.9  
 $\sigma = 2.3$



### Additional Training

If there is any one factor on which there is almost universal agreement, it is clear that additional training is required for pharmacists to practice in a clinical specialty area. This factor has one of the highest rankings among all careers surveyed. Responses to the survey noted several types of additional training required to specialize. Residency or fellowship training programs are a logical first step for new graduates who have decided on a career path. Certificate training programs are also available, providing highly focused training for both new graduates and practicing pharmacists.

= 9.4  
 $\sigma = 1.5$



### Interacting With Colleagues

Respondents indicated that they tend to interact with coworkers on a regular basis.

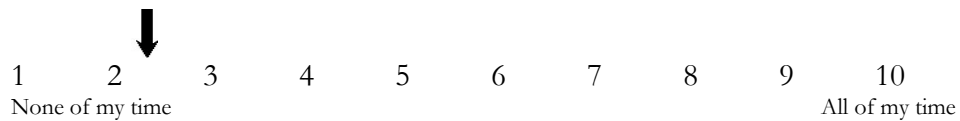
= 8.0  
 $\sigma = 1.9$



### Travel

For the most part, these positions have lower needs to travel for day-to-day activities. However, attending state, national, or international meetings provides some travel opportunities.

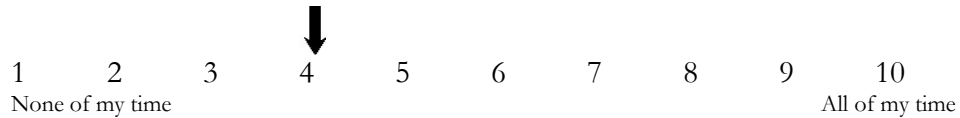
= 2.3  
 $\sigma = 1.5$



### Writing

Respondents were in the upper mid-range regarding writing. Respondents listed preparation of manuscripts as one of the reasons for writing.

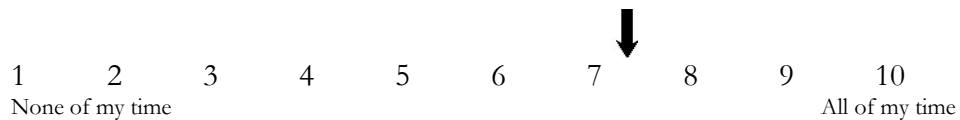
= 4.1  
 $\sigma = 2.1$



### Working With Teams

Respondents tend to have some team-related projects. In addition, they tend to work in teams to discuss patient care.

= 7.3  
 $\sigma = 7.2$



### “On Call”

Pharmacist clinical specialists indicated a low “on call” need for their positions. A few respondents in clinical trial areas are required to be “on call” for a specific amount of time.

= 4.3  
 $\sigma = 3.3$



### Work on Holidays

Specialty pharmacists tend not to work on holidays at their place of employment.

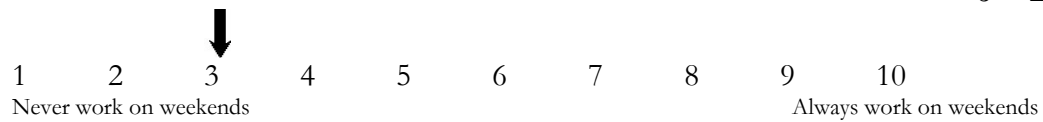
$$\begin{aligned} &= 3.3 \\ \sigma &= 2.8 \end{aligned}$$



### Work on Weekends

Responses concerning working on weekends were similar to those for working on holidays.

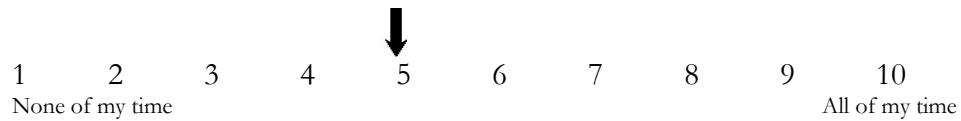
$$\begin{aligned} &= 3.1 \\ \sigma &= 2.6 \end{aligned}$$



### Presentations

Teaching was listed as the second-highest amount of time (11%) used in a given week. These specialists are called upon for continuing education and lectures at colleges of pharmacy.

$$\begin{aligned} &= 4.9 \\ \sigma &= 2.1 \end{aligned}$$



### Mean Scores for Critical Factors

1. Interaction With Patients	6.4
2. Conducting Physical Assessments	2.8
3. Interpreting Laboratory Values	6.5
4. Continuity of Relationships	5.6
5. Helping People	7.4
6. Collaboration With Other Professionals	8.0
7. Educating Other Professionals	6.3
8. Variety of Daily Activities	6.9
9. Multiple Task Handling	7.8
10. Problem Solving	5.9
11. Focus of Expertise	7.1
12. Innovative Thinking	6.8
13. Applying Scientific Knowledge	7.5
14. Applying Medical Knowledge	8.7
15. Creating New Knowledge by Conducting Research	3.5
16. Management/Supervision of Others	4.2
17. Management/Supervision of a Business	2.5
18. Pressure/Stress	6.6
19. Work Schedule	6.9
20. Part-Time Opportunities	4.0
21. Job-Sharing Opportunities	3.0
22. Exit/Re-entry Opportunities	4.4
23. Parental Leave Opportunities	7.6
24. Leisure/Family Time	6.5
25. Job Security	8.2
26. Opportunities for Advancement	5.7
27. Opportunities for Leadership Development	6.6
28. Community Prestige	6.6
29. Professional Involvement	7.6
30. Income	7.2
31. Benefits (vacation, health, retirement)	8.3
32. Geographic Location	6.5
33. Autonomy	8.2
34. Self-Worth	8.3
35. Future Focus	6.9
36. Professional Prestige	7.0
37. Unique Practice Environment	7.8
38. Advanced Degree	4.5
39. Entrepreneurial Opportunity	2.9
40. Additional Training	9.4
41. Interacting With Colleagues	8.0
42. Travel	2.3
43. Writing	4.1
44. Working With Teams	7.3
45. "On Call"	4.3
46. Work on Holidays	3.3
47. Work on Weekends	3.1
48. Presentations	4.9



## Reference

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

## Professional Organizations

American Academy of Clinical Toxicology (AACT)  
777 East Park Drive, PO Box 8820, Harrisburg, PA 17105  
Tel: 717-558-7847  
[www.clintox.org](http://www.clintox.org)

American Association of Poison Control Centers (AAPCC)  
3201 New Mexico Avenue, Suite 310, Washington, DC 20016  
Tel: 202-362-7217  
[www.aapcc.org](http://www.aapcc.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](http://www.accp.com)

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

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

American Society for Parenteral and Enteral Nutrition (ASPEN)  
8630 Fenton Street, Suite 412, Silver Spring, MD 20910  
Tel: 301-587-6315 Toll-Free: 800-727-4567  
[www.clinnutr.org](http://www.clinnutr.org)

Board of Pharmaceutical Specialties (BPS)  
1100 15th Street NW, Suite 400, Washington, DC 20005  
Tel: 202-429-7591 Fax: 202-429-6304  
[www.bpsweb.org](http://www.bpsweb.org)

College of Psychiatric and Neurologic Pharmacists (CPNP)  
PO Box 85543, Lincoln, NE 68501  
Tel: 402-476-1677 Fax: 402-476-6547  
[www.cpn.org](http://www.cpn.org)

National Community Pharmacists Association (NCPA)  
205 Daingerfield Road, Alexandria, VA 22314  
Tel: 703-683-8200 Toll-Free: 800-544-7447 Fax: 703-683-3619  
[www.ncpanet.org](http://www.ncpanet.org)

National Institute for Standards in Pharmacist Credentialing (NISPC)  
1600 Feehanville Drive, Mount Prospect, IL 60056  
Phone: 847-391-4400 Fax: 847-391-4502  
[www.nispcnet.org](http://www.nispcnet.org)

NOTE: For further pharmacy organization information, please visit the American Association of Colleges of Pharmacy Web site at [www.aacp.org](http://www.aacp.org) and click on the “Related Pharmacy Organizations” link.