



NATIONAL PHARMACIST WORKFORCE STUDY 2019

2019
NATIONAL PHARMACIST WORKFORCE
STUDY

FINAL REPORT

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This current investigation was commissioned by the Pharmacy Workforce Center, Inc. (PWC). The PWC Board of Directors is comprised of American Association of Colleges of Pharmacy (AACCP), American College of Clinical Pharmacy (ACCP), American Pharmacists Association (APhA), American Society of Health-System Pharmacists (ASHP), Board of Pharmacy Specialties (BPS), National Alliance of State Pharmacy Associations (NASPA), National Association of Chain Drug Stores (NACDS) Foundation, National Community Pharmacy Association (NCPA) and Pharmacy Technician Certification Board (PTCB). PWC Observer organizations include Health Resources & Services Administration (HRSA) Bureau of Health Workforce (BHW) and National Association of Boards of Pharmacy (NABP).

Repository for Project Materials and Data

Project materials and data are stored at the University of Iowa, College of Pharmacy, Department of Pharmacy Practice & Science, 180 S. Grand Avenue, Iowa City, IA 52242.

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EXECUTIVE SUMMARY: SECTIONS I - VI

I. BACKGROUND

Pharmacy practice and the profession continue to evolve and respond as both external and internal factors have led to changes in service delivery and work-life. Limited payments for many pharmacy services have influenced pharmacists' ability to provide them. Some pharmacies have responded by offering new services and by limiting costs through substitution of pharmacist labor through use of automation and technicians. As pharmacies work to adjust to external influences, such changes in work-life and service delivery can affect pharmacists. For example, there have been reports of job burnout by pharmacists across settings. Tracking of healthcare quality and pharmacy performance is becoming more common. The aging population and advancing healthcare technology have continued to increase demand for health care services, including medications and pharmacist services. The increased number of graduates from U.S. pharmacy schools has added capacity to the pharmacist workforce.

This 2019 National Pharmacist Workforce Study (NPWS) provides an update on the pharmacist workforce and examines changes since previous studies done in 2014 and 2009. In addition, the 2019 NPWS examines newer topics affecting pharmacist work-life, including job burnout, discrimination and harassment in the workplace, as well as retirement.

II. STUDY OBJECTIVES

The primary purpose of this project was to collect reliable information on demographic characteristics, work contributions and the quality of work-life of the pharmacist workforce in the United States during 2019. The results support analyses and trends from previous NPWS surveys conducted in 2009 and 2014. The project obtained information from a random sample of licensed pharmacists. Specific objectives included:

1. Describe demographic and work-life characteristics of the pharmacist workforce in the United States during 2019.
2. Describe work contributions of the pharmacist workforce in the United States during 2019.
3. Examine the new pharmacy workforce variables, including job burnout, workplace discrimination and harassment, opioid-related practice issues and pharmacist retirement during 2019.

III. METHODS

To meet the project objectives, a cross-sectional, descriptive survey design was used for collecting and analyzing data. Data were collected using an on-line survey hosted at the University of Iowa.

Survey Questionnaire: Questions comprising each section of the survey were taken primarily from previous workforce surveys conducted by members of the project team or from other published research. The survey questionnaire included seven topic areas: 1) General Employment Status and Work Environment, 2) Pharmacist Work Hours and Activities, 3) Pharmacy Practice Site Characteristics and Experiences, 4) Quality of Work-Life, 5) Opioid-related Activities, 6) Retirement and 7) Demographics.

Sampling Strategy: The National Association of Boards of Pharmacy Foundation (NABPF) drew a systematic random sample of 96,100 from its unduplicated list of licensed pharmacists in the US. The study sample represents over 20% of the licensed pharmacists in NABPF's files.

Survey Administration: Data collection included sending sampled subjects three emails that contained a link to an online survey (Qualtrics). The emails were sent out by the NABPF to sampled subjects. Subjects were asked to click on the survey link to access the survey. The emails were sent out on May 22, 2019, May 31, 2019 and June 10, 2019. A pilot test was conducted prior to the main survey to determine the feasibility of these proposed methods.

Data Analysis: Submitted surveys were available to researchers at the University of Iowa through their Qualtrics account. On July 8, 2019 the survey datafiles were downloaded from Qualtrics. Data are presented in this report in a manner that allows comparison to previous NPWSs whenever possible, since not all the same questions were included in each administration of the survey.

IV. RESULTS

About one-third of sampled subjects opened the email sent during the second and third email waves, with a mean open rate of 27.4% across the three email waves. The average rate for clicking on the survey link, after opening the email, was 11.7%. Across the three email waves, the mean bounce rate (i.e. undeliverable email) was 1.4%.

A total of 5,467 usable responses were received. A usable response was defined as responses which contained responses (i.e. no missing data) for each of five key variables: work status, gender, age, hours worked weekly and practice setting. The same definition for a usable response was used in previous national surveys. The maximum number of emails delivered was 94,803. This resulted in a traditional usable response rate of 5.8%. A total of 8,466 pharmacists clicked on the survey link. Using the number of pharmacists who clicked on the survey link as a denominator, 64.6% of pharmacists provided a usable response.

Demographics

Overall in 2019, 79.8% of licensed pharmacists submitting usable responses were actively practicing as pharmacists. A total of 5.5% of licensed pharmacists were working not as a pharmacist, a total of 9.8% of licensed pharmacists were retired, and 4.9% were unemployed. Compared to 2009, there was a greater proportion of responding licensed pharmacists working not as a pharmacist, retired, and unemployed in 2019. Of licensed pharmacists who reported being retired, 34.6% were female in 2019 compared to 20.2% in 2009. Overall, 78.2% of licensed pharmacists were white in 2019 compared to 86.5% in 2009. A total of 41.2% of licensed pharmacists were less than age 41 in 2019 compared to 22.8% in 2009. In 2019, 53.5% of licensed pharmacists earned a PharmD degree as their highest degree compared to 21.6% in 2009. Of actively practicing pharmacists, 65.1% were female compared to 46.4% in 2009. A total of 11.6% of actively practicing pharmacists were working part-time (<30 hours per week) compared to 20.9% in 2009.

A total of 50% of actively practicing pharmacists reported their primary place of employment was community-based practice settings (e.g. independent, chain, supermarket), 27.8% reported primary place of employment as hospital/health-system practice settings (e.g. government and non-government hospitals), and 6% reported primary place of employment as ambulatory care practice settings (e.g. outpatient clinics, primary care clinics). Reported primary place of employment for independent community and supermarket settings decreased from 2014 to 2019 and primary place of employment for ambulatory care practice settings increased between 2014 and 2019.

Of actively practicing pharmacists who were in management positions in 2019, 58.8% were female compared to 40.5% in 2009. In 2019, 20.5% of actively practicing female pharmacists held management positions compared to 29.8% in 2009.

Work Contribution, Compensation and Debt

In 2019, males working full-time as a pharmacist worked 0.9 weekly hours more than females. The difference in weekly hours worked between male and female full-time pharmacists was 1.6 hours in 2014 and 2.4 hours in 2009. Overall, pharmacists working full-time worked an average of 43.8 hours per week in 2019, the same as in 2009. Overall, 23.3% and 12.4% of actively practicing pharmacists reported that the average number of hours they worked weekly increased and decreased, respectively, from last year. On

average, pharmacists who reported that the number of hours they worked weekly decreased from last year, worked 8.1 fewer hours. Pharmacists who reported that the number of hours they worked weekly increased from last year, worked, on average, 7.7 more hours.

A total of 44.2% of pharmacists actively practicing full-time received an increase in base pay in 2019 compared to 31.7% in 2014. Also, a total of 48.4% of pharmacists actively practicing full-time reported their base pay stayed the same in 2019 compared to 31.7% in 2014. By primary place of employment, a smaller proportion of full-time pharmacists in community retail pharmacies enjoyed increased base pay in 2019 relative to full-time pharmacists in other employment settings. Also, a considerably higher proportion of full-time pharmacists in community retail pharmacies (approximately 12%) reported a base pay decrease in the past year compared to full-time pharmacists in hospital settings (2%).

Overall, in 2019, 71% of full-time actively practicing pharmacists rated their workload level at their primary place of employment as “high” or “excessively high”, compared to 66% and 68% of full-time pharmacists in 2014 and 2009, respectively. Furthermore, 69% of full-time pharmacists in 2019 reported that their workload “increased” or “greatly increased” compared to a year ago. The proportion was higher than in 2014 (64%) and 2009 (61%). By primary employment setting, the highest proportions of full-time pharmacists rating their workload as “high” or “extremely high” were in chain (91%) and mass merchandiser (88%) pharmacy settings, while the lowest proportions of full-time pharmacists rating their workload as “high” or “extremely high” were in independent community (48%) and ambulatory care (57%) pharmacy settings.

Pharmacists who reported graduating during the latest decade (2011-2019) reported a mean student loan debt at time of graduation of \$142,875, which was higher than the mean debt at graduation of \$82,188 reported by pharmacists graduating between 2001-2010.

Practice Activities, Environment, and Changes

Full-time pharmacists reported the percentage of time they spent in patient care activities during a typical week. The mean percentage of time spent on patient care activities associated with dispensing was 49%, though it ranged from 9-75% across primary employment settings. The overall mean percent of time spent on care activities not associated with dispensing was 22% (range: 9-41%). The means were similar to means reported from the 2014 NPWS (49% and 21%, respectively). Business or organizational management had the third highest mean percentage at 12% (range: 8-20%). Full-time pharmacists in a management position reported spending less time on care activities (dispensing 50%, non-dispensing 11%) and more time in business management (27%) than do pharmacists in staff positions (55%, 28%, 5% respectively).

Overall, about half of actively practicing pharmacists reported working with more than one pharmacist during a majority of their workday. The range across primary employment settings was large (18-81%) , with the lowest percentage reported by pharmacists working in chain settings and the highest percentage reported by pharmacists working in other patient care settings. The highest percentages of pharmacists working with residents were in hospital and ambulatory care settings. The most common type of personnel with which pharmacists work during a majority of their workday across all employment settings is multiple technicians.

Actively practicing pharmacists reported about various changes that occurred at their primary place of employment in the past year. A total of 62% of pharmacists reported that the “ease of pharmacists in your community finding work” decreased while 3% said it increased. Also, a total of 47% of pharmacists reported that “your feeling of job security” decreased while 7% said it increased. A total of 68% of pharmacists working in chain settings reported that their feeling of job security decreased compared to 30% of

pharmacists working in ambulatory care settings. A total of 55% and 54% of pharmacists working in chain settings and mass merchandiser settings, respectively, reported that the number of technicians working at their workplaces decreased. About one-third (33%) of pharmacists across all primary employment settings reported an increase in communicating with prescribers (range: 17-50%).

Services Provided

Overall, the three most common services reported being offered by actively practicing pharmacists in ambulatory care settings were medication education (61.6%) or counseling (48.5%) and changing drug therapy independent from a patient-specific order or prescription (45.1%). The three most common services reported being offered by actively practicing pharmacists in hospital/acute care settings were drug level monitoring (87.2%), therapeutic drug interchange (81.5%), and ordering laboratory tests (72.7%). A majority of actively practicing pharmacists in community pharmacists reported administering vaccines (90.0%), providing patient medication assistance (e.g. coupons, discounts) (83.4%), dispensing naloxone (72.2%), providing medication therapy management (MTM) services (66.7%) and providing medication synchronization (66.5%). Over 30% of actively practicing pharmacists in community settings reported monitoring diabetes (35.7%) and hypertension (35.6%) therapy for patients in the past month.

Community pharmacists reported about their services related to the opioid crisis. According to pharmacists working in mass merchandiser and large chain settings, the most common method to dispense naloxone is via a standing order (76.6% and 63.3% respectively). Conversely, according to pharmacists working in independent and small chain settings, the most common method to dispense naloxone is based on a prescription order (44.4% each). Overall, 52.1% of pharmacists working in community settings reported dispensing naloxone less than once a month and 6.2% of pharmacists reported dispensing naloxone at least once a week. Although 57% of pharmacists working in community settings reported that they were very confident about recommending naloxone to a patient, only 28.3% of pharmacists working in community settings reported that they were very confident in their ability to administer it.

Quality of Work-life

The quality of work-life section measured full-time pharmacists' attitudes about work-home conflict (i.e. work impacting home-life, job satisfaction, organizational commitment, home-work conflict (home impacting work-life and control in the work environment). A total of 58% of pharmacists reported high levels of job satisfaction. Job satisfaction was lowest among pharmacists working in chain, mass merchandiser and supermarket settings. Overall, only one-third of respondents reported they had a high level of control in their work environment with higher levels of control reported by pharmacists working in independent community pharmacy (50% of pharmacists), ambulatory care (50% of pharmacists) and other (non-patient care) (65% of pharmacists) settings. Generally, compared to 2014, the results related to work attitudes suggest that full-time pharmacists' quality of work-life was lower in 2019.

In terms of job stress, full-time pharmacists reported on experiences or aspects of their jobs that are "highly stressful." The three most common "highly stressful" job experiences or aspects were "having so much work to do that everything cannot be done well" (43% reporting "highly stressful"), "working at current staffing levels" (37% reporting "highly stressful"), and "fearing that a patient will be harmed by a medication error" (35% reporting "highly stressful"). The findings were similar to findings in 2014. Female pharmacists rated each stressor higher than their male colleagues.

Regarding the job market, younger full-time pharmacists (up to age 30) and those practicing in community pharmacy settings reported a greater likelihood to search for new employment and a higher possibility of leaving their current job within the next year. A higher percentage of younger (up to age 30) full-time pharmacists were aware of vacant positions that would be a good fit for them.

Job burnout and professional fulfillment were assessed using subscales from the Professional Fulfillment Index (Troczel 2018) to measure professional fulfillment, work exhaustion and interpersonal disengagement. Low scores on the subscale of professional fulfillment and high scores on the subscales of work exhaustion and interpersonal disengagement indicate a higher level of job burnout. Subscale analyses showed that full-time pharmacists working in community independent and hospital settings reported higher levels of professional fulfillment, and lower levels of work exhaustion, compared to full-time pharmacists working in community chain, mass merchandiser, and supermarket work settings. Female full-time pharmacists reported lower levels of professional fulfillment and higher levels of work exhaustion compared to male full-time pharmacists.

A new section examining discrimination and harassment in the workplace also was introduced this year. In 2019, a total of 1,380 actively practicing pharmacists (31%) reported that they experienced a total of 2,820 incidents of discrimination (all basis/forms). The most common basis for/form of discrimination was age (31.3% of incidents) followed by gender (29.2% of incidents). Overall, only 15.9% of all discrimination incidents were reported to an employer. The most common offender of the discrimination incident was a male supervisor.

Actively practicing pharmacists reported a total of 2,311 incidents of harassment that occurred in their workplace. A total of 46.9% of the incidents occurred in community retail work settings. The most common type of harassment was “hearing demeaning comments related to race/ethnicity” (31.5%) followed by “hearing or observing offensive behavior of a sexual nature” (27.4%). When harassment was experienced, approximately 83% of pharmacists did not report the harassment to their employer. The most common offender of the harassment was a male customer/patient followed next by a male colleague.

Pharmacy Leadership

In 2019, 46.8% of pharmacists in management positions (i.e. owners/partners, upper management, lower management) reported that the perceived availability of qualified pharmacists to fill management positions was at least a moderate shortage. A total of 32.8% of pharmacists in management positions reported that the difficulty of filling a management position was more difficult than 5 years ago. A total of 31.6% of pharmacists in management positions reported that the difficulty of filling a management position was easier than 5 years ago.

For actively practicing pharmacists currently in staff positions, approximately 41.5% reported they were likely or very likely to pursue a management/leadership role in the next 5 years. The most common desire for leadership was the “desire to mentor others”. The “ability to make an impact” was the most common positive factor selected by both male and female staff pharmacists regardless of practice setting. The most common barrier to pursuing a leadership role reported by staff pharmacists was “role conflicting with family or lifestyle”.

Retirement

A total of 534 (9.8%) respondents reported their employment status as retired. The most common reported age at which pharmacists retired was 66. Factors such as “having established financial security”, “a desire for more personal or family time”, “the demands of the job” and “culture or philosophy at work” were most often rated as important in the decision to retire among the respondents. Where the gender differences were most notable within the reasons given for retiring were “culture or philosophy at work” and “negative interpersonal relationships at work”—a higher proportion of women rated these reasons to retire as very important.

Approximately one-quarter of retired pharmacists have continued to work in some capacity after they retired and approximately three-fourths of retired pharmacists continue to engage in pharmacy-related work. A higher proportion of retired women pharmacists volunteer time in a service capacity (nearly 60% vs. about 35% for men). About two-thirds of those retired pharmacists that volunteer do so primarily because they feel a need to contribute their talents and efforts. A slightly higher proportion of retired women pharmacists reported their decision to retire was not voluntary or somewhat voluntary.

V. LIMITATIONS

The findings of this study should be interpreted considering its limitations. The results are based on respondents' self-reports, which could be influenced by intent to make socially desirable responses or simple misinterpretations of questions. We tried to limit such errors by piloting the survey prior to the main data collection. Since the NPWS 2019 used a different survey mode (online) compared to previous NPWS surveys (mail), comparisons of these findings with those previous results should be done with caution.

While the response rate for this online survey met or exceeded standards for electronically administered surveys, the response rate was lower than previous National Pharmacist Workforce Studies and raises concerns about non-response bias. Our analyses of survey responses showed some differences in the respondents compared to the random sample selected by the NABPF from their population of licensed pharmacists. As a group, the NPWS 2019 respondents had a high percentage of female pharmacists, were older and had a lower percentage of pharmacists living in the Northeast and a higher percentage in the Midwest compared to the population of licensed pharmacists. These differences, and how they may be associated with the survey results, should be kept in mind when interpreting the findings.

VI. CONCLUSIONS

Overall these findings have provided continuing data and some new data about the pharmacist workforce. The pharmacist workforce continues to change in 2019. More licensed pharmacists were working outside of pharmacy or were unemployed relative to 2014, reflective of the tightening of the pharmacist labor market. Monitoring trends in pharmacist unemployment and reasons for unemployment will be important for the future. The proportion of licensed pharmacists that are non-white is increasing while the proportion of licensed pharmacists with a PharmD degree is growing rapidly. How much more racially diversified the pharmacist workforce can become is an important topic to ponder.

Among actively practicing pharmacists, the proportion that is female is over 65% and the proportion that is age 40 years or younger is nearly 50%. The impact that female pharmacists and young pharmacists will have on the workplace and how they react to the workplace will be important issues to monitor moving forward. The impact of rising student loan debt at time of graduation also will be important to monitor as debt load continues to increase. Less than half of staff pharmacists reported being interested in pursuing leadership positions, which raises attention for developing more pharmacy leaders.

The mean percentage of time spent on care activities not associated with dispensing did not change from 2014. Somewhat in contrast, a wide range of care services were reported being delivered by pharmacists in all practice settings. Some pharmacy settings continue to reduce pharmacist time spent in distributional tasks, while using more automation and pharmacy technicians where feasible. It is likely that availability of payment for enhanced services is a key influence on pharmacist delivery of them.

Overall, the quality of pharmacist work-life was positive, though high stress and job burnout were reported in some community settings. A focus on improving pharmacist work-life and preventing burnout and reduced service quality is important. Also, it is clear that discrimination and harassment in the pharmacy workplace should receive attention to improve employers' ability to positively respond to such incidents.

Mass merchandisers and large chain pharmacies were the most likely to dispense naloxone based on a standing order, whereas independent and small chain pharmacies were more likely to report dispensing

naloxone based on a patient prescription order. Given the continued presence of opioid misuse, it appears that more pharmacists could engage to a greater extent in addressing this problem.

Many retired pharmacists continue to maintain a presence in pharmacy. About a quarter of retired pharmacists have continued to work in some capacity during their retirement, with about 75 percent of those still working in pharmacy. A higher percentage of retired female pharmacists volunteer time in a service capacity. Many retired pharmacists reported enjoying retirement.

Section 1 Background, Study Objectives, Methods and Response Rate

1.1 Background

This 2019 National Pharmacist Workforce Study (NPWS) provides an update on the pharmacist workforce and examines changes since previous studies done in 2014 and 2009. In addition, the 2019 NPWS examines newer topics affecting pharmacist work-life, including job burnout, discrimination and harassment in the workplace, as well as retirement.

Pharmacy practice continues to evolve and respond to external factors. For example, financial, reimbursement-related challenges in community pharmacies such as the development of direct and indirect remuneration (DIR) fees have eroded revenues on dispensed prescriptions to the point of unprofitable dispensing for some prescriptions. These limited payments generally have led pharmacies to pursue two primary strategies: either low cost dispensing model or new revenue model. The low-cost dispensing model has tended to reduce staffing through automation and limited staffing levels, to try to retain profit from dispensing. The new revenue approach has mostly worked to develop and implement new services, such as adherence packaging, expanded immunizations, and medication management, that can tap into new sources of payment, such as value-based programs.

In hospital settings, high-cost specialty treatments have pressured pharmacy department budgets. Supply chain issues and drug shortages have necessitated strategic problem-solving and allocations to maintain critical care functions. Heightened concern about quality and cost-of-care phenomena related to re-admissions have been incorporated into Medicare and other coverage payment rates for hospital stays. Payment models continue to shift and evolve emphasis on care provided in outpatient or ambulatory care arenas.

Across settings, the aging population and advancing healthcare technology have continued to increase demand for health care services, including medications and pharmacist services. Tracking of healthcare quality and pharmacy performance is becoming more common. As changes in work activities and service delivery occur in response to external influences, such changes can affect pharmacists' work-life. For example, there have been reports of job burnout by pharmacists in a variety of settings. In addition, many patients participate in medication synchronization, which can provide pharmacists with regular opportunities to more closely monitor patients' medication therapy. Tracking of healthcare quality and pharmacy performance is becoming more common. The aging population and advancing healthcare technology have continued to increase demand for health care services, including medications and pharmacist services.

The increased number of graduates from U.S. pharmacy schools has added capacity to the pharmacist workforce. The number of pharmacy school graduates is a key factor that can contribute to changes in the balance of supply and demand for pharmacists. In the past 10 years, the annual number of U.S. pharmacy school graduates has consistently increased to greater levels each year (Figure 1.1.1). There is some concern that the high number of pharmacist graduates will produce an oversupply of pharmacists.

Study Objectives

The primary purpose of this project was to collect reliable information on demographic characteristics, work contributions and the quality of work-life of the pharmacist workforce in the United States during 2019. A goal was for results to allow trend analyses with data from previous NPWS surveys conducted in 2009 and 2014. The project obtained information from a random sample of licensed pharmacists. Specific objectives included:

1. Describe demographic and work-life characteristics of the pharmacist workforce in the United States during 2019.
2. Describe work contributions of the pharmacist workforce in the United States during 2019.

3. Examine the new pharmacy workforce variables, including job burnout, workplace discrimination and harassment, opioid-related practice issues and pharmacist retirement during 2019.

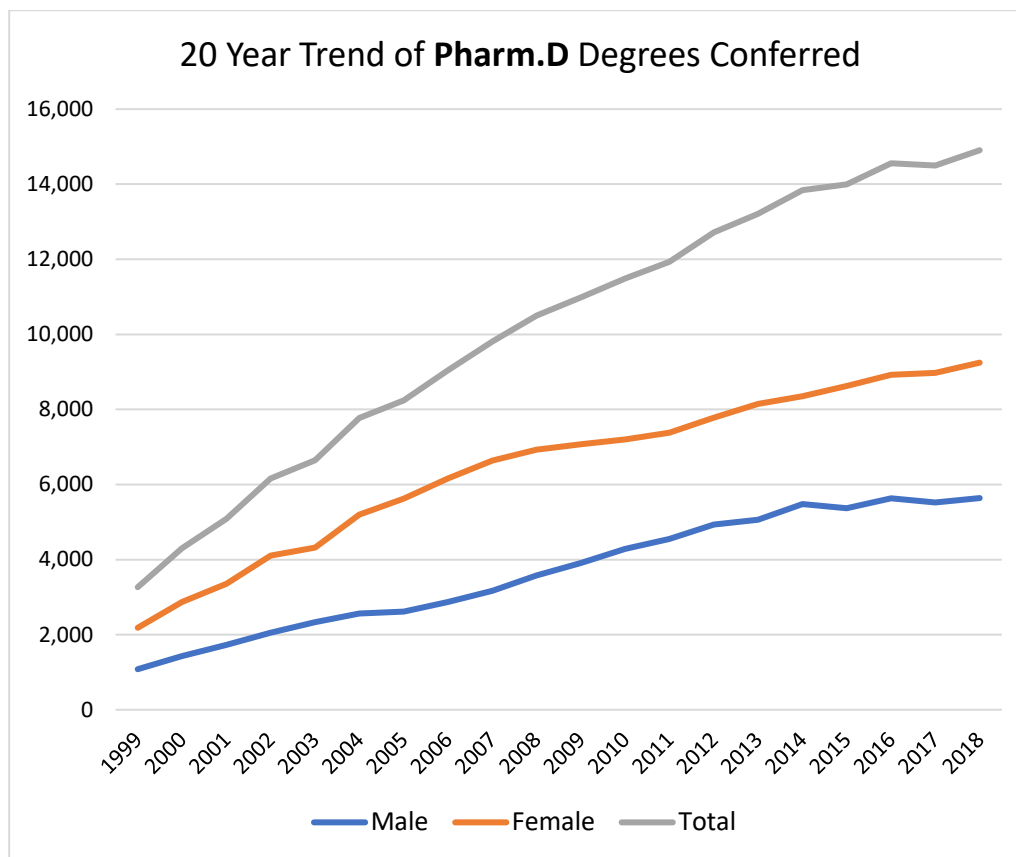


Figure 1.1.1 Number of U.S. Pharmacy School Pharm.D. Graduates: 1999-2018 (aacp.org)

Methods

To meet the objectives of the project, a cross-sectional, descriptive survey design was used for collecting and analyzing data. Data were collected using an online survey hosted at the University of Iowa.

Survey Questionnaire: Questions comprising each section of the survey were taken primarily from previous workforce surveys conducted by members of the project team or from other published research. The survey questionnaire included seven topic areas: 1) General Employment Status and Work Environment, 2) Pharmacist Work Hours and Activities, 3) Pharmacy Practice Site Characteristics and Experiences, 4) Quality of Work-Life, 5) Opioid-related Activities, 6) Retirement and 7) Demographics. The structure of the online survey allowed branching and skip logic to be used to allow respondents to see questions tailored to their work situation.

Survey Administration: Data collection included sending subjects three emails that contained a link to the (Qualtrics) online survey. The emails were sent out by the National Association of Boards of Pharmacy Foundation (NABPF) to a sample of 96,110 licensed pharmacists. Subjects were asked to click on the survey link to access the survey. The email waves were sent out on May 22, 2019, May 31, 2019 and June 10, 2019. A pilot test was conducted prior to the main survey to determine the feasibility of these proposed methods.

Sampling Strategy: The NABPF drew a systematic random sample of 96,100 persons from its unduplicated

list of licensed pharmacists in the US. This represents over 20% of licensed U.S. pharmacists.

Data Analysis: Surveys were available to researchers at the University of Iowa through their Qualtrics account. On July 8, 2019, data were downloaded from Qualtrics. Data are presented in this report in a manner that allows comparison to previous NPWSs whenever possible.

Results

1.2 Response Rate

A total of 5,467 usable responses were received, which meant they contained responses for five key variables: work status, gender, age, hours worked weekly and practice setting. The maximum number of emails delivered was 94,803. This resulted in a traditional usable response rate of 5.8%. A total of 8,466 pharmacists clicked on the survey link. Using that as a denominator, 64.6% of pharmacists who clicked on the survey link provided a usable response.

Table 1.2.1 shows characteristics from the three email waves sent out by NABPF. About one-third of respondents opened the email for the second and third email waves, with a mean open rate of 27.4% across the three email waves. For the initial email wave, it was determined that NABPF had one link going to the pilot survey, which was not active. That was corrected the next day, but likely resulted in the reduced open rate for the first email wave. The average rate for clicking on the survey link was 11.7%. Across the three email waves, the mean bounce rate (i.e. undeliverable email) was 1.4%.

NABPF provided some industry data on similar surveys using an email containing a survey link. The overall mean open rate across all industries was 16.2%, with health professionals having an average open rate of 16.4%. This survey had an open rate of 27.4%. Similarly, the mean bounce rate for health professionals reported by NABPF was 10.0%, compared to 1.4% for this survey. Finally, the mean survey link click rate for health professionals was reported to be 6.2%, compared to 11.7% for this survey. Using the industry data from NABPF, this survey performed favorably on all the tracked metrics.

Table 1.2.1 Characteristics of Three Email Waves Sent for Data Collection (N=96,110)

Email Wave	Total Recipients	Email Opens Frequency (%)	Survey Link Clicks Frequency (%)	Bounces Frequency (%)	Unsubscribes Frequency (%)
First	94,803	14,048 (14.8)	2,016 (14.4)	2,341 (2.5)	162 (0.17)
Second	93,092	31,563 (33.9)	3,663 (11.6)	850 (0.91)	223 (0.24)
Third	92,845	31,014 (33.4)	2,787 (9.0)	694 (0.75)	187 (0.20)

Table 1.2.2 shows the geographic breakdown of the respondents. The South had the largest percentage of respondents (37.5%), with the Midwest region having the next highest (24.3%). Both the Northeast and West regions had just under 20 percent of the responses. Figure 1.2.1 shows a map of the zip codes of the respondents, which demonstrates their geographic dispersion.

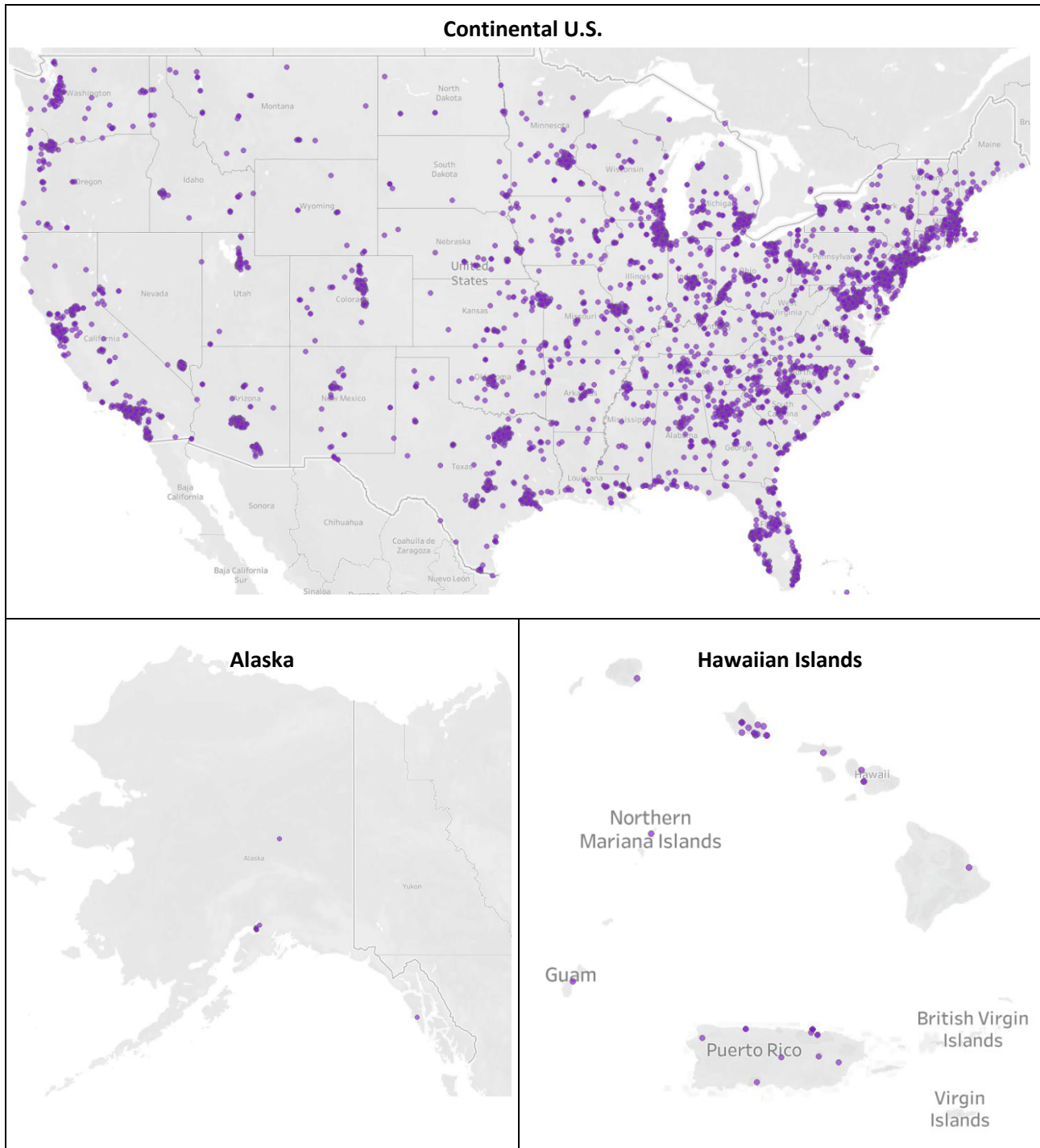
Table 1.2.3 contains the distribution of respondents by year of graduation. The largest subgroup is graduates from 2011-2019, with about one-third (33.8%) of responses. The decades back to 1971 all had about 15 percent of responses.

Table 1.2.2 Summary of Sampling Frame Population, Sample Size, and Number of Respondents (n, percent)

Coded Region	Region	Respondents N = 5,342 (n, %)
1	Northeast Connecticut; Maine; Massachusetts; New Hampshire; New Jersey; New York; Pennsylvania; Rhode Island; Vermont	945 (17.7)
2	Midwest Illinois; Indiana; Iowa; Kansas; Michigan; Minnesota; Missouri; Nebraska; North Dakota Ohio; South Dakota; Wisconsin	1,298 (24.3)
3	South Alabama; Arkansas; Delaware; District of Columbia; Florida; Georgia; Kentucky Louisiana; Maryland; Mississippi; North Carolina; Oklahoma; South Carolina; Tennessee; Texas; Virginia; West Virginia	2,008 (37.5)
4	West Alaska; Arizona; California; Colorado; Hawaii; Idaho; Montana; Nevada; New Mexico; Oregon; Utah; Washington; Wyoming	1,066 (19.9)
5	Outside of 50 United States APO/FPO/MP; Guam; Northern Mariana Islands; Puerto Rico; Virgin Islands	25 (0.5)

Note: N=5,342 due to missing data.

Figure 1.2.1 Representation by Geospatial Markers for Responses from the United States



Note: Inserted images represent general land locations of respondents from the U.S. They are not to scale. Images created using Tableau Desktop Public Edition 2019.2.2, Seattle, WA

Table 1.2.3 Summary of Year of Licensure and Number of Respondents

Years	Respondents (n, %)
up to 1960	26 (0.5)
1961 to 1970	156 (2.8)
1971 to 1980	733 (13.2)
1981 to 1990	1,020 (18.4)
1991 to 2000	940 (17.0)
2001 to 2010	790 (14.3)
2011 to 2019	1,869 (33.8)

Note: N=5,534 due to missing data.

1.3 Assessment for Non-Response Bias

With the low response rate for this survey, it is reasonable to be concerned about non-response bias. Two ways to assess for non-response are to compare actual responses to the study population and to compare early and late responses. In this case, NABP provided data on limited demographic variables for their population of US licensed pharmacists (shown in Table 1.3.1). That table shows that as a group compared to the population, the respondents had a higher percentage of females, only slight differences geographically and were in practice somewhat longer. Table 1.3.2 compares respondents from the first email wave (i.e. early respondents) to those responses after the third emailing (i.e. late respondents). Again, we see some differences, with the early respondents being older, having a higher percentage of males and a lower percentage of PharmD degrees.

Table 1.3.1 Comparison of Respondents and Sample by Gender, Region of Country (Residence) and Year of First Licensure/Graduation

	Respondents n (%)*	Sample n (%)*	Chi-square Test[†]
Gender	N = 5,534	N = 96,110	p < 0.01
Male	2,098 (37.9)	39,975 (41.6)	
Female	3,427 (61.9)	55,849 (58.1)	
Non-binary	9 (0.2)	NA	
Unknown	NA	286 (0.30)	
Region of Country (Residence)	N = 5,342	N = 96,110	p < 0.01
Northeast	945 (17.7)	18,561 (19.3)	
Midwest	1,298 (24.3)	21,205 (22.1)	
South	2,008 (37.5)	36,997 (38.5)	
West	1,066 (19.9)	18,818 (19.6)	
Outside the 50 U.S. & D.C.	25 (0.5)	529 (0.60)	
Years**	First Licensure N = 5,534	Graduation Date N = 94,322	p < 0.01
up to 1960	26 (0.5)	228 (0.2)	
1961 – 1970	156 (2.8)	1,557 (1.7)	
1971 – 1980	733 (13.2)	7,021 (7.4)	
1981 - 1990	1,020 (18.4)	11,329 (12.0)	
1991 - 2000	940 (17.0)	15,909 (16.9)	
2001 - 2010	790 (14.3)	16,380 (17.4)	
2011 - 2019	1,869 (33.8)	41,898 (44.4)	

* Percent figures reported are column percentages

** Note that first licensure could naturally differ from graduation date, which could create some differences in this comparison.

Table 1.3.2: Comparison of Respondents of First E-mailing of Survey to Respondents after the Last E-Mailing of Survey

	First E-Mail[‡] n (%)*	After Final E-Mail n (%)*	Chi-square Test
Age	N = 1,223	N = 1,932	p < 0.01
≤30	150 (12.3)	289 (15.0)	
31 to 40	237 (19.4)	559 (28.9)	
41 to 50	205 (16.8)	306 (15.8)	
51 to 60	294 (24.0)	400 (20.7)	
61 to 70	268 (21.9)	290 (15.0)	
>70	69 (5.6)	88 (4.6)	
Gender	N = 1,226	N = 1,930	p < 0.01
Male	527 (43.0)	690 (35.8)	
Female	699 (57.0)	1,240 (64.2)	
PharmD Degree	N = 1,226	N = 1,930	p < 0.01
Yes	544 (44.4)	1,062 (55.0)	
No	682 (55.6)	868 (45.0)	
Employment Status	N = 1,226	N = 1,930	p = 0.01
Practicing pharmacy	936 (76.3)	1,541 (79.8)	
Healthcare-not practicing	63 (5.1)	92 (4.8)	
Non-Healthcare	12 (1.0)	10 (0.5)	
Retired	157 (12.8)	180 (9.3)	
Unemployed	58 (4.7)	107 (5.5)	
Employment Setting	N = 1,009	N = 1,759	p = 0.36
Community	454 (45.0)	837 (47.6)	
Outpatient/MD Clinic	59 (5.8)	103 (5.9)	
Hospital	271 (26.9)	438 (24.9)	
Other: patient care	99 (9.8)	192 (10.9)	
Other: not patient care	126 (12.5)	189 (10.7)	
Year of Licensure	N = 1,229	N = 1,935	p < 0.01
up to 1960	6 (0.5)	8 (0.4)	
1961 to 1970	39 (3.2)	47 (2.4)	
1971 to 1980	226 (18.4)	230 (11.9)	
1981 to 1990	258 (21.0)	335 (17.3)	
1991 to 2000	233 (19.0)	320 (16.5)	
2001 to 2010	147 (12.0)	312 (16.1)	
2011 to 2019	320 (26.0)	683 (35.3)	

* Percent figures reported are column percentages

‡ First e-mail dates were 05/22/19-05/30/19 (9 days) & 3rd e-mail dates were 06/10/19-07/07/19 (28 days)

Section 2 Characteristics of the Pharmacist Workforce

2.1 Characteristics of Licensed Pharmacists

Tables 2.1.1 through 2.1.5 contain summaries of licensed pharmacists by gender and work status, highest degree earned, race, and age. By gender in 2019, 61.8% of licensed pharmacists responding to the survey identified as female, 38.0% identified as male and 0.2% identified as non-binary. In 2014 and 2009, 52.7% and 44.8%, respectively, of licensed pharmacists responding to the survey were female (non-binary was not included in prior surveys).

Overall, 79.8% of licensed pharmacists responding to the survey in 2019 were working and practicing as a pharmacist or working in a pharmacy-related career. (Table 2.1.1) This compares to 75% in 2014, and 88.3% in 2009. By gender, 72.7% of male and 84.1% of female licensed pharmacists were working as a pharmacist or in pharmacy-related work in 2019. This compares to 65.2% of males and 83.9% of females in 2014, and 85.9% males and 91.3% females in 2009. The proportion of licensed pharmacists who are working but not working as a pharmacist continued to increase year-over-year from 2% in 2009, to 3% in 2014 and 5.5% in 2019. In 2019, 88.9% of non-binary individuals were working as a pharmacist or in a pharmacy related field compared to 11.1% (n=1) working but not as a pharmacist. Of note, there were no non-binary individuals that reported being retired or unemployed in 2019.

In 2019, the proportion of licensed pharmacists working full-time was 68.2%. The proportion of licensed pharmacists working full-time was 61.7% in 2014 and 67.4% in 2009. The proportion of licensed pharmacists working part-time was 11.6% in 2019, a decrease from 13.3% in 2014 and 14.9% in 2009. The proportion of unemployed licensed pharmacists (not including retired) continued to increase from 2.7% in 2009, to 3.9% in 2014, and 4.9% in 2019.

The proportion of both male and female licensed pharmacists working part-time decreased in 2019 compared to data from 2014 and 2009. The proportion of male pharmacists working part-time decreased from 15.8% in 2009 to 8.9% in 2014, and 8.6% in 2019. The proportion of female pharmacists working part-time decreased from 27.2 % in 2009 to 17.2% in 2014 and 13.4% in 2019.

By gender in 2019, the proportions of licensed male and female pharmacist respondents that were retired was 16.8% and 5.5%, respectively. This compares to 28.8% and 8.5% of male and female respondents, respectively, that were retired in 2014. By gender, 4.7% of male and 5.0% of female licensed pharmacist respondents were unemployed in 2019, compared to 2.8% of males and 5.0% of females in 2014 and 1.6% of males and 4.6% of females in 2009. Overall, in 2019, 14.7% of licensed pharmacist respondents were either retired or unemployed compared to 22% in 2014.

Table 2.1.2 shows that the racial diversity of licensed pharmacists continues to underrepresent the racial diversity of the general population in the United States. In 2019, 78.2% of pharmacists were white, which decreased from 2014 (85.1%) and 2009 (86.5%). In contrast, there was an increase in the proportion of Asian pharmacists: 11.1% in 2019, 8.5% in 2014, and 8.1% in 2009. The proportion of black pharmacists increased in 2019 to 4.9%, compared to 2.3% in 2014 and 2.0% in 2009. Respondents in the “Other” racial category (American Indian, Hispanic/Latino and Other) represented 5.8% in 2019, 4.1% in 2014, and 3.3% in 2009.

Table 2.1.3 displays the age distribution of licensed pharmacists by work status. Licensed pharmacists age 45 or younger were more likely to be working full-time as pharmacists relative to other age groups. Licensed pharmacists over age 50 were more likely to be working part-time and working outside of pharmacy. In 2019, 42.2% of licensed pharmacist respondents were age 55 years or older. This is slightly

higher than 2014 (37.4%), and 2009 (37.1%). Approximately, 41.2% of pharmacists in 2019 were 40 years old or younger. This compares to 28% in 2014 and 22.8% in 2009. The increase in the number of younger respondents from 2009 to 2019 is likely reflective of the increase in the number of pharmacists graduating from PharmD programs each year, which doubled between 2004 to 2018.

Table 2.1.4 shows that the proportion of licensed pharmacists whose highest degree is a Doctor of Pharmacy (PharmD) degree was 53.5% in 2019 compared to 37.8% in 2014 and 21.6% in 2009. In 2019, 36.2% of licensed pharmacists held a BS degree as their highest degree compared to 52% in 2014 and 66.3% in 2009.

Table 2.1.5 depicts the proportion of licensed pharmacists that completed residency or fellowship training. The percentages of pharmacists reporting having completed a PGY1 residency was 13.7%, a PGY2 residency 4.5% and a fellowship 1.5%. In 2019, 78.8% of PGY1 residency-trained licensed pharmacists were practicing full-time, 81.5% of PGY2 residency-trained licensed pharmacists were practicing full-time and 53.6% of fellowship-trained licensed pharmacists were practicing full-time. Over one-quarter (28.6%) of licensed pharmacists who completed fellowship training were not working as a pharmacist (practitioner).

Unemployed pharmacists are described in Table 2.1.6. About 5% (N=267) of responding pharmacists reported being unemployed. Most of them (76.3%) were seeking a job as a pharmacist, and over half (61.1%) stated their unemployment was not voluntary. The mean age of this group was 48.6 years. The mean number of months unemployed was 18.6.

Table 2.1.1 Comparison of Percent Licensed Pharmacists by Work Status & Gender 2019-2009

Gender	Practicing Pharmacy		Not Practicing Pharmacy			Total
	Full-Time	Part-Time	Working not as a Pharmacist	Retired	Unemployed	
2019	# Cases (% of Row)					
Male	1,333 (64.1)	180 (8.6)	122 (5.9)	349 (16.8)	97 (4.7)	2,081
Female	2,388 (70.7)	454 (13.4)	180 (5.3)	185 (5.5)	170 (5.0)	3,377
Non-Binary	6 (66.7)	2 (22.2)	1 (11.1)	0 (0.0)	0 (0.0)	9
Total	3,727 (68.2)	636 (11.6)	303 (5.5)	534 (9.8)	267 (4.9)	5,467
2019	(% of Column)					
Male	(35.8)	(28.3)	(40.3)	(65.4)	(36.3)	(65.4)
Female	(64.1)	(71.4)	(59.4)	(34.6)	(63.7)	(34.6)
Non-Binary	(0.2)	(0.3)	(0.3)	(--)	(--)	(0)
2014	# Cases (% of Row)					
Male	611 (56.3)	97 (8.9)	35 (3.2)	313 (28.8)	30 (2.8)	1,086
Female	808 (66.7)	208 (17.2)	33 (2.7)	103 (8.5)	60 (5.0)	1,212
Total	1,419 (61.7)	305 (13.3)	68 (3.0)	416 (18.1)	90 (3.9)	2,298
2014	(% of Column)					
Male	(43.1)	(31.8)	(51.5)	(75.2)	(33.3)	(47.3)
Female	(56.9)	(68.2)	(48.5)	(24.8)	(66.7)	(52.7)
2009	# Cases (% of Row)					
Male	519 (70.1)	117 (15.8)	18 (2.4)	75 (10.1)	12 (1.6)	741
Female	386 (64.1)	164 (27.2)	9 (1.5)	19 (3.2)	24 (4.0)	602
Total	905 (67.4)	281 (20.9)	27 (2.0)	94 (7.0)	36 (2.7)	1,343
2009	(% of Column)					
Male	(57.3)	(41.6)	(66.7)	(79.8)	(33.3)	(55.2)
Female	(42.7)	(58.4)	(33.3)	(20.2)	(66.7)	(44.8)

Note: Results based on respondents who provided information for a minimum set of variables (work status, gender, age, hours worked weekly at primary employment setting and practice setting). Pharmacists were classified as working part-time if they worked 30 hours or less per week in their primary employment. Pharmacists not working in pharmacy listed a variety of non-pharmacy careers including other industries, other health professions, other retail businesses, health care administration and education. The gender category of non-binary was added to the NPWS survey in 2019. No data on the number of non-binary pharmacists was collected prior to 2019. Data from 2014 may not be directly comparable to previous reports as a new systematic opt-out response was used to document those who are unemployed or not working in 2014.

Table 2.1.2: Responding Pharmacists' Work Status by Race 2019 - 2009

Race	Practicing Pharmacy		Not Practicing Pharmacy			Total
	Full-Time	Part-Time	Working, Not as a Pharmacist	Retired	Unemployed	
2019	Percent by Race					n (Col %)
White	67.1	12.0	5.3	11.3	4.3	4,238 (78.2)
Black	68.4	12.4	5.3	4.1	9.8	266 (4.9)
Asian	73.8	10.3	6.3	4.1	5.5	603 (11.1)
Other	74.3	8.9	6.7	3.8	6.3	315 (5.8)
Total	68.3	11.7	5.5	9.7	4.8	5,422 (100)
2014	Percent by Race					n (Col %)
White	66.6	10.6	2.7	16.7	3.5	1,421 (85.1)
Black	76.9	10.3	2.6	2.6	7.7	39 (2.3)
Asian	78.9	7.7	2.1	9.9	1.4	142 (8.5)
Other	77.6	9	1.5	6	6	68 (4.1)
Total	68.3	10.3	2.6	15.3	3.5	1,670 (100)
2009	Percent by Race					n (Col %)
White	66.1	21.5	2.3	7.5	2.6	1,158 (86.5)
Black	77.8	14.8	--	3.7	3.7	27 (2.0)
Asian	74.3	21.1	--	1.8	2.8	109 (8.1)
Other	77.3	11.4	--	6.9	4.5	44 (3.3)
Total	67.3	21.0	2.0	7.0	2.7	1,338 (100)

Note: Results based on respondents who provided information for a minimum set of variables (work status, gender, age, hours worked weekly at primary employment setting, and practice setting). Pharmacists were classified as working part-time if they worked 30 hours or less per week in their primary employment. Pharmacists not working in pharmacy listed a variety of non-pharmacy careers including other industries, other health professions, other retail businesses, health care administration and education. "Other" for Race consisted of American Indian, Hispanic/Latino/Latina and Other.

Table 2.1.3: Licensed Pharmacists' Work Status by Age Category 2019 - 2009

Age	Practicing Pharmacy		Not Practicing Pharmacy			Total	
	Full-Time	Part-Time	Working not as a Pharmacist	Retired	Unemployed	n	Col %
2019	% of Row					n	Col %
24-30	86.4	6.5	3.1	0.0	4.0	843	15.4
31-35	87.3	6.3	3.6	0.0	2.7	885	16.2
36-40	77.8	12.0	5.5	0.0	4.6	523	9.6
41-45	76.9	10.9	6.1	0.5	5.6	394	7.2
46-50	71.9	13.5	7.4	0.6	6.6	513	9.4
51-55	68.6	14.6	8.9	1.2	6.7	582	10.6
56-60	63.8	15.1	8.3	6.2	6.6	564	10.3
61-65	51.4	12.4	5.9	24.0	6.3	508	9.3
66-70	25.0	16.8	4.5	50.0	3.7	380	7.0
>70	11.6	19.3	2.9	63.6	2.5	275	5.0
Total	68.2	11.6	5.5	9.8	4.9	5,467	100
2014	% of Row					n	Col %
24-30	94.0	2.0	1.3	0.6	2.0	154	7.5
31-35	88.4	10.1	--	--	1.6	192	9.3
36-40	82.9	11.6	2.8	--	2.8	225	10.9
41-45	74.9	18.7	1.4	0.9	4.1	223	10.8
46-50	74.9	15.5	3.8	1.3	4.6	245	11.9
51-55	79.7	11.8	3.0	2.1	3.4	253	12.3
56-60	70.0	11.6	3.4	10.1	4.9	274	13.3
61-65	56.3	7.9	3.3	27.9	4.7	224	10.9
66-70	21.0	6.8	1.2	70.4	0.6	167	8.1
>70	15.8	8.7	1.0	72.1	2.9	106	5.1
Total	68.9	11.1	2.3	14.4	3.4	2,063	100
2009	% of Row					n	Col %
24-30	87.5	12.5	--	--	--	32	2.4
31-35	78.5	14.3	2.4	0.8	4.0	126	9.4
36-40	66.9	27.7	2.0	0.7	2.7	148	11.0
41-45	69.0	22.8	1.9	--	6.3	158	11.8
46-50	78.6	17.6	3.1	--	0.6	159	11.8
51-55	78.0	17.9	2.2	1.3	0.4	223	16.6
56-60	84.0	7.7	1.1	3.9	3.3	181	13.5
61-65	60.7	18.5	3.7	14.8	2.2	135	10.1
66-70	31.0	44.8	1.1	19.5	3.4	87	6.5
>70	10.6	38.3	--	47.9	3.2	94	7.0
Total	67.4	20.9	2.0	7.0	2.7	1,343	100

Table 2.1.4 Licensed Pharmacists' Work Status by Highest Degree Held 2019 - 2009

Academic Degrees	Practicing Pharmacy		Not Practicing Pharmacy			Total
	Full-Time	Part-Time	Working Not as a Pharmacist	Retired	Unemployed	
2019	Percent by Highest Degree					n (Col %)
BS	54.2	15.7	4.5	18.9	6.7	1,977 (36.2)
PharmD	80.3	8.9	4.6	2.3	4.0	2,924 (53.5)
MS/MBA	58.2	11.5	11.3	16.3	2.7	486 (8.9)
Ph.D.	30.0	12.5	31.3	18.8	7.5	80 (1.5)
Total	68.1	11.7	5.5	9.8	4.9	5,467 (100)
2014	Percent by Highest Degree					N (Col %)
BS	59.1	13.4	2.3	21.0	4.2	1,088 (52.3)
PharmD	82.8	9.3	1.2	4.1	2.6	788 (37.8)
MS/MBA	72.4	5.9	3.9	16.4	1.3	157 (7.5)
Ph.D.	75.9	3.4	10.3	10.3	0	30 (0.9)
Total	70.5	11.3	2.1	12.8	3.3	2,063 (100)
2009	Percent by Highest Degree					n (Col %)
BS	64.8	22.9	1.0	8.7	2.6	888 (66.3)
PharmD	76.2	17.6	1.4	2.1	2.8	290 (21.6)
MS/MBA	74.0	15.4	4.1	4.1	2.4	123 (9.2)
PhD	65.2	8.7	8.7	13.0	4.3	23 (1.7)
Total	68.2	20.8	1.5	6.9	2.6	1,324 (100)

Note: For 2019, 2014 & 2009, each respondent was attributed one 'highest' degree.

Table 2.1.5 Licensed Pharmacists' PGY1 & PGY2 Residency & Fellowship by Work Status 2019

Training	Practicing Pharmacy		Not Practicing Pharmacy			Total
	Full-Time	Part-Time	Working not as a Pharmacist	Retired	Unemployed	
2019	# Cases (% of Row)					N (Col %)
PGY1	592 (78.8)	66 (8.8)	53 (7.1)	28 (3.7)	12 (1.6)	751 (69.3)
PGY2	202 (81.5)	11 (4.4)	16 (6.5)	15 (6.0)	4 (1.6)	248 (22.9)
Fellowship	45 (53.6)	3 (3.6)	24 (28.6)	11 (13.1)	1 (1.2)	84 (7.8)

Table 2.1.6 Characteristics of Unemployment Among Responding Licensed Pharmacists by Gender 2019

	Male	Female	Total
Unemployment Situation:	(N = 97)	(N = 170)	(N = 267)
Seeking a Pharmacy Job	72.2%	67.6%	69.2%
Seeking Their First Pharmacy Job	9.3%	5.9%	7.1%
Seeking a Job Outside of Pharmacy	9.3%	7.1%	7.9%
Not Seeking Any Job	9.3%	19.4%	15.7%
Reason for Leaving Workforce:	(N = 88)	(N = 159)	(N = 247)
Voluntary Based on Workplace Factors	14.8%	18.2%	17.0%
Voluntary Based on Personal Factors	19.3%	23.3%	21.9%
Involuntary	65.9%	58.5%	61.1%
Average Age of Respondents	51.3	47.0	48.6
Average Number of Years Employed Prior to Unemployment	24.1	17.9	20.1
Average Number of Months Unemployed	15.7	20.2	18.6

2.2 Characteristics of Actively Practicing Pharmacists

Tables 2.2.1 through 2.2.6 summarize the characteristics of pharmacists' actively practicing pharmacy (working as pharmacists in a licensed pharmacy or in a pharmacy-related field or position).

Table 2.2.1 and Table 2.2.2 show the breakdown of actively practicing pharmacists by gender and age category. In 2019, actively practicing pharmacists were 65.1% female, 34.7% male, and 0.2% non-binary. The proportion of actively practicing pharmacists who are female continues to increase, from 46.4% in 2009 and 57.1% in 2014. This likely is reflective of the increased number of women compared to men graduating from pharmacy school each year. Among respondents who were actively practicing as pharmacists, the proportion of both male and female pharmacists working part-time decreased from 2009 and 2014. The proportion of actively practicing female pharmacists working part-time decreased to 16.0% in 2019 compared to 18.7% in 2014 and 29.8% in 2009. For males, the proportion of actively practicing pharmacists working part-time was 11.9% in 2019 compared to 16.4% in 2014 and 18.4% in 2009.

The age distribution of actively practicing pharmacists also changed between 2009 and 2019. The proportion of actively practicing pharmacists who were age 40 years or younger continued to increase. In 2019, 41.2% of actively practicing pharmacists were age 40 years or younger, compared to 31.6% in 2014 and 24.4% in 2009. The proportion of actively practicing pharmacists who were over age 55 has remained relatively constant, from 32.5% in 2009, to 30.6% in 2014 and 31.6% in 2019. The number of actively practicing pharmacists age 65 years or older continuing to work beyond retirement age has increased each year, with the exception of 2014. The proportion of practicing pharmacists age 65 years or older was 9.4%, 7.9% and 12.0% in 2009, 2014 and 2019 respectively.

Table 2.2.3 shows all categories of practice settings reported by actively practicing pharmacists that responded to the survey. Of the pharmacists actively practicing in 2019, 50% reported employment in community practice settings (e.g. independent, chain, supermarket), 27.8% reported employment in hospital/health-system practice settings (e.g. government and non-government hospitals), and 6% reported employment in ambulatory care practice settings (e.g. outpatient clinics, primary care clinics). Reported employment in independent community and supermarket settings decreased from 2014 to 2019 (data from 2014 not shown). Conversely, reported employment in small chain, large chain, and mass merchandiser settings increased from 2014 to 2019 (data from 2014 not shown). Two new employment categories, ambulatory care and specialty pharmacy were added in 2014. Employment in ambulatory care practice settings increased to 6.0% in 2019 from 1.2% in 2014. Employment in specialty pharmacy settings remained relatively constant at 2.7% in 2019 and 2.8% in 2014.

The percentages of active practitioners who completed a PGY1 residency was 15.1%, a PGY2 residency 4.9% and a fellowship 1.1%. Table 2.2.4 shows actively practicing pharmacists' residency training and fellowship training by condensed employment setting, age, and gender. The two most common practice settings where actively practicing pharmacists with either PGY1 or PGY2 residency training were practicing were hospitals and other patient care settings. A total of 5.5% of PGY1 trained pharmacists and 2.3% of PGY2 trained pharmacists were practicing in community pharmacy settings (i.e. independent, chain, mass merchandiser, supermarket) in 2019. Of the actively practicing pharmacists that completed fellowship training, 33.3% were practicing in hospital settings, 29.2% were practicing in other patient care settings, and 25% were practicing in non-patient care settings. In 2019, the largest proportion of actively practicing pharmacists that completed a PGY1 or PGY2 residency program were age 40 years or younger. In 2019, 74.3% of PGY1 trained pharmacists were 40 years of age or younger and 76.1% of PGY2 trained pharmacists were 40 years of age or younger. The largest proportion of actively practicing pharmacists with fellowship training were between the ages of 56-60 years in 2019 (22.9%). A majority of pharmacists who completed PGY1 and PGY2 residency training were females (73.9% and 68.5%, respectively).

Table 2.2.5 shows the proportion of actively practicing pharmacists by employment position. The proportion of owners/partners has declined each year from 2009, 2014, and 2019 (8.1%, 5.0% and 2.7%, respectively). The proportion of owners/partners that were female increased slightly from 2009 (24%) to 2014 (27.5%) and again in 2019 (31.1%). In 2014, the proportion of females in management positions was greater than males for the first time since the survey began in 2000. The proportion of females in management positions increased from 2014 to 2019 as well. In 2019, there continued to be more female pharmacists in management positions compared to males. In 2019, 58.8% of pharmacists in management positions were female and 40.8% were male. This compares to 55.2% female and 44.8% male in 2014. The greatest proportion of pharmacists continues to be in staff positions at 74.6% in 2019. This proportion is higher than 2014 (64.6%), and 2009 (62.1%).

Table 2.2.6 shows the proportion of actively practicing pharmacists working full-time and further categorized by practice setting and gender. In 2019, across each practice setting, a majority of full-time pharmacists were females, except in independent community pharmacies.

Table 2.2.1 Actively Practicing Pharmacists' Hourly Status by Gender

Gender	Full-Time	Part-Time	Total	
2019	% of Column		n	%
Male	35.8	28.3	1,513	34.7
Female	64.1	71.4	2,842	65.1
Non-Binary	0.2	0.3	8	0.2
Total	100	100	4,363	100
	% by Row			
Male	88.1	11.9	100	
Female	84.0	16.0	100	
Non-binary	75.0	25.0	100	
Total	85.4	14.6	100	
2014	% of Column		n	%
Male	43.6	39.8	726	42.9
Female	56.4	60.2	965	57.1
Total	100	100	1,691	100
	% by Row			
Male	83.6	16.4	100	
Female	81.3	18.7	100	
Total	82.3	17.7	100	
2009	% of Column		n	%
Male	57.3	41.6	636	53.6
Female	42.7	58.4	550	46.4
Total	100	100	1,186	100
	% by Row			
Male	81.6	18.4	100	
Female	70.2	29.8	100	
Total	76.3	23.7	100	

Note: Results based on respondents who provided information for a minimum set of variables (work status, gender, age, hours worked weekly at primary employment setting, and practice setting). Pharmacists were classified as working part-time if they worked 30 hours or less per week in their primary employment.

Table 2.2.2 Actively Practicing Pharmacists' Hourly Status by Age Category

Age Category	Full-Time	Part-Time	Total	
2019	% of Column		n	%
24-30	19.5	8.6	783	17.9
31-35	20.7	8.8	829	19.0
36-40	10.9	9.9	470	10.8
41-45	8.1	6.8	346	7.9
46-50	9.9	10.8	438	10.0
51-55	10.7	13.4	484	11.1
56-60	9.7	13.4	445	10.2
61-65	7.0	9.9	324	7.4
66-70	2.5	10.1	159	3.6
>70	0.9	8.3	85	1.9
Total	100	100	4,363	100.0
2019	% of Row			
24-30	93.0	7.0	100	
31-35	93.2	6.8	100	
36-40	86.6	13.4	100	
41-45	87.6	12.4	100	
46-50	84.2	15.8	100	
51-55	82.4	17.6	100	
56-60	80.9	19.1	100	
61-65	80.6	19.4	100	
66-70	59.7	40.3	100	
>70	37.6	62.4	100	
Total	85.4	14.6	100	
2014	% of Column		n	%
24-30	10.1	1.0	144	8.5
31-35	12.2	5.4	186	11.0
36-40	12.9	8.4	204	12.1
41-45	11.9	12.7	203	12.0
46-50	12.9	12.4	216	12.8
51-55	13.7	10.0	221	13.1
56-60	13.4	12.0	223	13.2
61-65	8.8	12.7	160	9.5
66-70	2.7	16.1	86	5.1
>70	1.4	9.4	48	2.8
Total	100	100	1,691	100
2014	% of Row			
24-30	97.9	2.1	100	
31-35	91.4	8.6	100	
36-40	87.7	12.3	100	
41-45	81.3	18.7	100	
46-50	82.9	17.1	100	

51-55	86.4	13.6	100	
56-60	83.9	16.1	100	
61-65	76.2	23.8	100	
66-70	44.2	55.8	100	
>70	41.7	58.3	100	
Total	82.3	17.7	100	
2009	% of Column		n	%
24-30	3.1	1.4	32	2.7
31-35	10.9	6.4	117	9.9
36-40	10.9	14.6	140	11.8
41-45	12.0	12.8	145	12.2
46-50	13.8	10.0	153	12.9
51-55	19.2	14.2	214	18.0
56-60	16.8	5.0	166	14.0
61-65	9.1	8.9	107	9.0
66-70	3.0	13.9	66	5.6
>70	1.1	13.9	46	3.9
Total	100	100	1,186	100
	% of Row			
24-30	87.5	12.5	100	
31-35	84.6	15.4	100	
36-40	70.7	29.3	100	
41-45	75.2	24.8	100	
46-50	81.7	18.3	100	
51-55	81.3	18.7	100	
56-60	91.6	8.4	100	
61-65	76.6	23.4	100	
66-70	40.9	59.1	100	
>70	21.7	78.3	100	
Total	76.3	23.7	100	

Note: Results based on respondents who provided information for a minimum set of variables (work status, gender, age, hours worked weekly at primary employment setting, and practice setting). Pharmacists were classified as working part-time if they worked 30 hours or less per week in their primary employment.

Table 2.2.3 Actively Practicing Pharmacists' Hourly Status by Primary Employment Practice Setting (Non-Condensed) 2019

2019 Practice Setting	Percent by Practice Setting n (% of Column)		
	Full-Time	Part-Time	Total
Community Pharmacy	1,845 (49.5)	348 (54.7)	2,193 (50.3)
Independent	269 (7.2)	122 (19.2)	391 (9.0)
Small Chain	41 (1.1)	20 (3.1)	61 (1.4)
Large Chain	823 (22.1)	90 (14.2)	913 (20.9)
Mass Merchandiser	305 (8.2)	66 (10.4)	371 (8.5)
Supermarket	288 (7.7)	27 (4.2)	315 (7.2)
Health System Retail	45 (1.2)	10 (1.6)	55 (1.3)
Mail Order	59 (1.6)	9 (1.4)	68 (1.6)
Community - Other	15 (0.4)	4 (0.6)	19 (0.4)
Hospital/Health-System	1,054 (28.3)	157 (24.7)	1,211 (27.8)
Non-Government Hospital	959 (25.7)	148 (23.3)	1,107 (25.4)
Government Hospital	56 (1.5)	3 (0.5)	59 (1.4)
Health-System/VA/HIS	24 (0.6)	2 (0.3)	26 (0.6)
Hospital - Other	15 (0.4)	4 (0.6)	19 (0.4)
Ambulatory Care	220 (5.9)	41 (6.4)	261 (6)
Nursing Home/LTC	134 (3.6)	34 (5.3)	168 (3.9)
Managed Care/PBM	121 (3.2)	11 (1.7)	132 (3)
Specialty Pharmacy	104 (2.8)	15 (2.4)	119 (2.7)
Academia	58 (1.6)	1 (0.2)	59 (1.4)
Home Health/Infusion	54 (1.4)	8 (1.3)	62 (1.4)
Government/Military (Not VA)	21 (0.6)	0 (0)	21 (0.5)
Industry	16 (0.4)	3 (0.5)	19 (0.4)
Data/Technology/Information	14 (0.4)	1 (0.2)	15 (0.3)
Nuclear	13 (0.3)	0 (0)	13 (0.3)
Niche Business	12 (0.3)	2 (0.3)	14 (0.3)
Corrections/Prison	11 (0.3)	1 (0.2)	12 (0.3)
Compounding	11 (0.3)	2 (0.3)	13 (0.3)
Other	10 (0.3)	6 (0.9)	16 (0.4)
Remote/Tele-Health	10 (0.3)	1 (0.2)	11 (0.3)
Professional/Trade Association	7 (0.2)	1 (0.2)	8 (0.2)
Community-Based Organization	2 (0.1)	0 (0)	2 (0)
Niche Healthcare Provider	5 (0.1)	3 (0.5)	8 (0.2)
Research/Oversight/Regulatory	5 (0.1)	1 (0.2)	6 (0.1)
Total	3,727 (85.4)	636 (14.6)	4,363 (100)

Note: Results based on respondents who provided information for a minimum set of variables (work status, gender, age, hours worked weekly at primary employment setting, and practice setting). Pharmacists were classified as working part-time if they worked 30 hours or less per week in their primary employment.

Table 2.2.4 Actively Practicing Pharmacists' PGY1 & PGY2 Residency & Fellowship by Practice Setting (condensed), Age & Gender 2019

	PGY1	PGY2	Fellowship	Total
Practice Setting	n (% of Column)			
Independent	12 (1.8)	0 (0)	1 (2.1)	13
Chain	11 (1.7)	4 (1.9)	3 (6.3)	18
Mass Merchandiser	3 (0.5)	1 (0.5)	0 (0)	4
Supermarket	10 (1.5)	0 (0)	0 (0)	10
Hospital	373 (56.7)	113 (53.1)	16 (33.3)	502
Industry	3 (0.5)	2 (0.9)	2 (4.2)	7
Other Patient Care	158 (24.0)	53 (24.9)	14 (29.2)	225
Non-Patient Care	88 (13.4)	40 (18.8)	12 (25.0)	140
Total	658 (100)	213 (100)	48 (100)	919
Age Category	n (% of Column)			
24-30	216 (32.8)	70 (32.9)	7 (14.6)	293
31-35	179 (27.2)	63 (29.6)	7 (14.6)	249
36-40	94 (14.3)	29 (13.6)	4 (8.3)	127
41-45	38 (5.8)	10 (4.7)	3 (6.3)	51
46-50	35 (5.3)	11 (5.2)	2 (4.2)	48
51-55	40 (6.1)	9 (4.2)	6 (12.5)	55
56-60	24 (3.6)	10 (4.7)	11 (22.9)	45
61-65	19 (2.9)	4 (1.9)	3 (6.3)	26
66-70	9 (1.4)	4 (1.9)	5 (10.4)	18
>70	4 (0.6)	3 (1.4)	0 (0)	7
Total	658 (100)	213 (100)	48 (100)	919
Gender	n (% of Column)			
Male	171 (26.0)	67 (31.5)	24 (50.0)	262
Female	486 (73.9)	146 (68.5)	24 (50.0)	656
Non-Binary	1 (0.2)	0 (0)	0 (0)	1
Total	658	213	48	919

Table 2.2.5 Actively Practicing Pharmacists' Primary Employment Position by Gender 2019-2009

Position	# Cases	Male	Female	Non-Binary	Male	Female	Non-Binary	All Cases
2019		% by Row			% by Column			
Owner/Partner	119	68.1	31.1	0.8	5.4	1.3	12.5	2.7
Management	991	40.8	58.8	0.4	26.7	20.5	50.0	22.7
Staff	3,253	31.6	68.3	0.1	67.9	78.2	37.5	74.6
Total	4,363	34.7	65.1	0.2	100.0	100.0	100.0	100.0
2014								
Owner/Partner	69	72.5	27.5	--	8.8	2.4	--	5.0
Management	415	44.8	55.2	--	32.9	28.5	--	30.4
Staff	885	37.3	62.7	--	58.3	69.1	--	64.6
Total	1,369	43.1	58.7	--	100.0	100.0	--	100.0
2009								
Owner/Partner	96	76.0	24.0	--	11.6	8.1	--	8.1
Management	351	59.5	40.5	--	33.2	29.8	--	29.8
Staff	732	47.5	52.5	--	55.2	62.1	--	62.1
Total	1,179	53.4	46.6	--	100.0	100.0	--	100.0

Table 2.2.6 Pharmacists Working Full-Time by Gender versus Primary Employment Practice Setting (condensed)

Practice Setting	# Cases	Percent by Practice Setting		
		Males	Females	Non-Binary
2019		% of Row		
Independent	269	51.7	47.6	0.7
Chain	864	36.5	63.5	0.0
Mass Merchandiser	305	35.7	64.3	0.0
Supermarket	288	30.2	69.8	0.0
Hospital/Health-System	1030	35.0	64.9	0.2
Industry	16	37.5	62.5	0.0
Other Patient Care	673	33.9	66.0	0.1
Other Non-Patient Care	282	31.6	68.1	0.4
Total	3,727	35.6	64.2	0.2
2014		% of Row		
Independent	102	55.9	44.1	--
Chain	288	45.5	54.5	--
Mass Merchandiser	96	40.6	59.4	--
Supermarket	111	40.5	59.5	--
Hospital	423	42.8	57.2	--
Industry	38	43.9	56.1	--
Other Patient Care	221	34.2	65.8	--
Other Non-Patient Care	113	38.9	61.1	--
Total	1,392	43.6	56.4	--
2009		% of Row		
Independent	106	68.9	31.1	--
Chain	226	55.8	44.2	--
Mass Merchandiser	46	56.5	43.5	--
Supermarket	92	63.0	37.0	--
Hospital	249	54.2	45.8	--
Industry	35	55.4	44.6	--
Other Patient Care	92	51.4	48.6	--
Other Non-Patient Care	59	54.2	45.8	--
Total	905	57.3	42.7	

Note: Results based on respondents who provided information for a minimum set of variables (work status, gender, age, hours worked weekly at primary employment setting, and practice setting. *Full-time* is defined as working more than 30 hours weekly at the primary employer. *Chain* is a combination of small chain and large chain settings. *Hospital* is a combination of government and non-government hospitals. *Other Patient Care Practice* is defined as settings where pharmacists are providing patient care and is a combination of HMO-operated pharmacies, clinic pharmacies, mail service, nuclear, nursing home/long term care and home health. *Other (non-patient care)* is defined as settings where pharmacists may not provide patient care and is a combination of MCO/PBM, education/academia, government (FDA, etc.) and other.

In 2014 *Other Patient Care Practice* is defined as settings where pharmacists are providing patient care and is a combination of clinic pharmacies, mail service, nursing home/long term care, specialty pharmacy, ambulatory care, other patient care, other, and home health/infusion. *Other (non-patient care)* is defined as settings where pharmacists may not provide patient care and is a combination of MCO/PBM, education/academia, and other non-patient care.

2.3 Hours Worked by Actively Practicing Pharmacists

Tables 2.3.1 and 2.3.2 describe hours worked by full-time practicing pharmacists and both full-time and part-time practicing pharmacists, respectively. Tables 2.3.3 and 2.3.4 summarize changes in mean weekly hours worked since last year for full-time practicing pharmacists. Table 2.3.5 describes secondary employment and average hours worked monthly in secondary employment.

The gap in hours worked between male and female full-time practicing pharmacists continues to close. In 2019, males working full-time worked 0.9 hours more than females (Table 2.3.1). This difference between men and women in weekly hours worked was 1.6 hours in 2014 and 2.4 hours in 2009. Overall, pharmacists working full-time worked an average of 43.8 hours per week in 2019, 44.2 hours per week in 2014, and 43.8 hours per week in 2009. Pharmacists in industry and other (non-patient care) settings worked the most hours weekly (49.6 hours and 44.6 hours, respectively).

Male full-time pharmacists worked more hours per week across all position types, except owners/partners, compared to females (Table 2.3.2). Consistent with previous years, for full-time practicing pharmacists, pharmacists in management positions (46.5 hours/week) worked more hours per week than pharmacists in staff positions (43.0 hours/week). For pharmacists working part-time in 2019, females in each of the three positions worked more hours per week than their male counterparts.

Overall, 23.3% and 12.4% of practicing pharmacists reported that the average number of hours they worked weekly increased and decreased, respectively, from last year (Table 2.3.3). Pharmacists practicing in hospital settings were least likely to report that the average number of hours they worked weekly decreased from last year. Pharmacists in Supermarket and Chain settings were most likely to report that the average number of hours they worked weekly increased from last year.

On average, pharmacists who reported that the number of hours they worked weekly decreased from last year, worked 8.1 fewer hours (Table 2.3.4). Pharmacists practicing in Other Patient Care settings reported the largest decrease (11.1 hours/week) in weekly hours worked relative to last year. Pharmacists who reported that the number of hours they worked weekly increased from last year, worked, on average, 7.7 more hours. Pharmacists practicing in Mass Merchandiser settings reported the largest increase (9.6 hours/week) in weekly hours worked relative to last year.

Table 2.3.5 shows the percentage of full-time actively practicing pharmacists who reported secondary employment and weekly hours worked. In 2019, overall, over 11% of pharmacists had secondary jobs. A total of 10% of owners worked in a secondary job. The most common primary employment settings for pharmacists with a secondary position were industry (37.5%), non-patient care (18.1%), and independent (15.2%). The proportion of full-time actively practicing pharmacists with secondary employment was greater in 2019 compared to 2014. On average, pharmacists with secondary employment worked 17.3 hours per month. Male and female pharmacists that had secondary employment worked about the same number of hours per month.

Table 2.3.1 Full-time Practicing Pharmacists' Mean Weekly Hours Worked in Primary Employment by Gender versus Practice Setting 2019-2009

Average Weekly Hours	Full-time			
Practice Setting	All Cases	Males	Females	Non-binary [‡]
2019	(n=3,727)	(n=1,333)	(n=2,388)	(n=6)
Independent	44.3	46.3	42.0	61.5
Chain	43.0	43.5	42.7	--
Mass Merchandiser	43.3	44.0	42.8	--
Supermarket	42.2	43.0	41.9	--
Hospital	44.3	44.3	44.3	38.0
Other Patient Care Practice	44.1	44.6	43.8	45.0
Industry	49.6	58.3	44.4	--
Not Patient Care	44.9	44.6	45.0	50.0
Total	43.8	44.3	43.4	49.0
2014	(n = 1,431)	(n =622)	(n = 809)	--
Independent	44.2	46.6	41	--
Chain	43.5	43.9	43	--
Mass Merchandiser	42	42.3	41.9	--
Supermarket	42.1	43.5	41.1	--
Hospital	44.1	44.8	43.6	--
Other: Patient Care Practice	44.4	45.6	43.6	--
Other: (non-patient care)	47.7	49.1	46.9	--
2009	(n = 905)	(n =519)	(n = 386)	--
Independent	47.3	48.7	44.1	--
Chain	41.8	42.8	40.4	--
Mass Merchandiser	41.9	43.1	40.3	--
Supermarket	41.2	42	39.6	--
Hospital	44.1	45	43.1	--
Other: Patient Care Practice	42.7	44.2	40.9	--
Other: (non-patient care)	47.2	47.9	46.5	--

Note: Results based on respondents who provided information for a minimum set of variables (work status, gender, age, hours worked weekly at primary employment setting, and practice setting). Weekly hours are actual hours worked, rather than scheduled hours. Chain is a combination of small chain and large chain settings. Hospital is a combination of government and non-government hospitals. Other Patient Care Practice is defined as settings where pharmacists are providing patient care and is a combination of HMO-operated pharmacies, clinic pharmacies, mail service, nuclear, nursing home/long term care and home health. Other (non-patient care) is defined as settings where pharmacists may not provide patient care and is a combination of MCO/PBM, education/academia, government (FDA, etc.) and other.

[‡]Non-binary was introduced in 2019

Table 2.3.2: Actively Practicing Pharmacists' Mean Weekly Hours Worked in Primary Employment by Hourly Status and Gender versus Position 2019-2009

Position Type	Full-time				Part-time			
	All Full-time	Males	Females	Non-binary [‡]	All Part-time	Males	Females	Non-binary [‡]
2019	(n=3,727)	(n=1,333)	(n=2,388)	(n=6)	(n=636)	(n=180)	(n=454)	(n=2)
Owner, Partner	48.7	48.7	50.0	68.0	23.2	23.1	24.0	--
Management	46.5	46.5	46.2	50.0	19.3	14.8	20.1	30.0
Staff	43.0	43.0	42.4	38.0	20.3	19.5	20.6	20.0
Total	44.3	44.3	43.4	49.0	20.3	19.6	20.6	25.0
2014	(n=1,163)	(n=510)	(n=653)	--	(n=259)	(n=108)	(n=151)	--
Owner, Partner	49.6	50.4	47.4	--	20.4	20.5	20	--
Management	46	47.1	45.1	--	24.5	21.6	27.7	--
Staff	43.1	43.4	42.8	--	19.6	17.5	20.8	--
Total	44.4	45.2	43.7	--	19.9	18.2	21.1	--
2009	(n=900)	n=515	(n=385)	--	(n=279)	n=115	(n=164)	--
Owner, Partner	51.3	51.7	49.7	--	20.5	21.5	18.9	--
Management	45.1	45.9	43.8	--	22.7	22.9	22.6	--
Staff	41.7	42.4	41	--	19.1	16.9	20.5	--
Total	43.8	44.8	42.3	--	19.5	18	20.6	--

Note: Results based on respondents who provided information for a minimum set of variables (work status, gender, age, hours worked weekly at primary employment setting, and practice setting). Weekly hours are actual hours worked, rather than scheduled hours. Pharmacists were classified as working part-time if they worked 30 hours or less per week in their primary employment. Chain is a combination of small chain and large chain settings. Hospital is a combination of government and non-government hospitals. Other Patient Care Practice is defined as settings where pharmacists are providing patient care and is a combination of HMO-operated pharmacies, clinic pharmacies, mail service, nuclear, nursing home/long term care and home health. Other (non-patient care) is defined as settings where pharmacists may not provide patient care and is a combination of MCO/PBM, education/academia, government (FDA, etc.) and other.

[‡]Non-binary was introduced in 2019

Table 2.3.3 Practicing Pharmacists Reporting of Change in Their Average Weekly Hours Since Last Year by Practice Setting

Setting Frequency (% by row)	Decreased	No Change	Increased	Total
Independent	58 (14.8)	269 (68.8)	64 (16.4)	391
Chain	170 (17.5)	527 (54.2)	276 (28.4)	973
Mass Merchandiser	66 (17.8)	226 (60.9)	79 (21.3)	371
Supermarket	47 (14.9)	177 (56.2)	91 (28.9)	315
Hospital	91 (7.7)	856 (72.2)	238 (20.1)	1,185
Other Patient Care Practice	80 (10)	522 (65.3)	197 (24.7)	799
Industry	2 (10.5)	12 (63.2)	5 (26.3)	19
Non-patient care	27 (8.8)	215 (70)	65 (21.2)	307
Total	541 (12.4)	2,804 (64.3)	1,015 (23.3)	4,360

Note: Results based on respondents who provided information for a minimum set of variables (work status, gender, age, hours worked weekly at primary employment setting, and practice setting). Chain is a combination of small chain and large chain settings. Hospital is a combination of government and non-government hospitals. Other Patient Care Practice is defined as settings where pharmacists are providing patient care and is a combination of HMO-operated pharmacies, clinic pharmacies, mail service, nuclear, nursing home/long term care and home health. Other (non-patient care) is defined as settings where pharmacists may not provide patient care and is a combination of MCO/PBM, education/academia, government (FDA, etc.) and other.

Table 2.3.4 Change in Average Weekly Hours Worked for Pharmacists Reporting a Decrease or Increase in Weekly Hours Worked from Last Year by Practice Setting

Setting	Average Decrease in Weekly Hours	Average Increase in Weekly Hours
	(n = 348)	(n = 953)
Independent	11.0	8.2
Chain	6.3	7.2
Mass Merchandiser	7.3	9.6
Supermarket	7.1	6.4
Hospital	9.1	8.3
Other Patient Care Practice	11.1	7.4
Industry	--	9.0
Non-patient care	9.6	7.4
Total	8.1	7.7

Note: Results based on respondents who provided information for a minimum set of variables (work status, gender, age, hours worked weekly at primary employment setting, and practice setting). Chain is a combination of small chain and large chain settings. Hospital is a combination of government and non-government hospitals. Other Patient Care Practice is defined as settings where pharmacists are providing patient care and is a combination of HMO-operated pharmacies, clinic pharmacies, mail service, nuclear, nursing home/long term care and home health. Other (non-patient care) is defined as settings where pharmacists may not provide patient care and is a combination of MCO/PBM, education/academia, government (FDA, etc.) and other.

Table 2.3.5 Percentage of Actively Practicing Full-Time Pharmacists with Secondary Employment and Average Hours Worked in Secondary Job 2019 & 2014

Full-time	2019		2014	
Variable	Percent with Secondary Employment	Average Annual Hours in Secondary Position**	Percent with Secondary Employment	Average Annual Hours in Secondary Position*
By Gender				
Male	13.1	205.2	8.7	392
Female	10.3	210	7.0	218
Non-binary	50.0	204	--	--
Total	11.3	207.6	7.8	303
By Position				
Owner, Partner	10.0	211.2	12.5	242
Manager	8.0	180.0	7.9	239
Staff	12.6	214.8	7.6	348
Total	11.3	207.6	7.9	303
By Practice Setting				
Independent	15.2	206.4	--	--
Chain	5.0	225.6	4.1	363
Mass Merchandiser	7.2	154.8	6.1	237
Supermarket	7.3	266.4	7.9	162
Hospital	15.1	204.0	9.2	338
Other Patient Care Practice	12.3	207.6	8.0	229
Industry	37.5	193.2	10.5	120
Non-patient care	18.1	199.2	9.2	178
Total	11.3	207.6	7.7	297

Note: Percentages with secondary employment as a percentage of full-time, actively practicing pharmacists in the category. *Chain* is a combination of small chain and large chain settings. *Hospital* is a combination of government and non-government hospitals. *Other Patient Care Practice* is defined as settings where pharmacists are providing patient care and is a combination of HMO-operated pharmacies, clinic pharmacies, mail service, nuclear, nursing home/long term care and home health. *Other (non-patient care)* is defined as settings where pharmacists may not provide patient care and is a combination of MCO/PBM, education/academia, government (FDA, etc.) and other. Different questions about secondary employment hours were asked in 2019 & 2014. Interpolated data were added to this table for comparison purposes.

*In 2014, average annual hours were reported. Independent pharmacies were not reported.

**In 2019, average monthly hours were reported. Average annual hours were estimated by multiplying monthly hours by 12.

2.4 Changes in Base Pay and Additional Earnings

In 2019 compared to 2014, smaller proportions of pharmacists reported increases in their base pay during the past year and there were more pharmacists noting a decrease in their base pay (Table 2.4.1). Approximately 45 percent of pharmacists had increased pay in 2019 compared to over 60 percent in 2014. Owners particularly had low rates of pay increases in 2019 compared to the year before and more than 1 in 5 had a decrease in pay.

Across settings, a smaller proportion of community pharmacists enjoyed increased base pay in 2019 relative to pharmacist in other work settings. Also, a considerably higher proportion of community pharmacists had a base pay decrease in the past year compared to their hospital pharmacy colleagues (approximately 12% versus 2% with decreased pay, respectively). The results for pharmacists in industry should be viewed with caution; a small number of pharmacists working in industry are represented in the results, likely because many working in that setting may not have interpreted their work activities as “practicing” as a pharmacist. The overall trend for fewer pharmacists with positive pay increments in the past year may reflect a tightening labor market, especially with relatively strong overall economic trends in the U.S. economy in recent years.

Overall, the proportion of pharmacists with additional pecuniary earnings declined in 2019 compared to 2014 (Table 2.4.2). There was a slight decline in the proportion of pharmacists with overtime earnings, but a substantial decrease in the proportion of pharmacists with bonus or incentive earnings (from slightly over 60% to 45%). Traditional and expected patterns of types of additional earnings continued across position and settings, with managers more often reporting bonuses, incentives, and profit sharing or stock options, and with community pharmacists more often reporting these same additions to income.

Table 2.4.1 Percentage of Actively Practicing Full-Time Pharmacists Reporting a Base Pay Change in Past Year 2019 & 2014

Variable	2019				2014			
	n	Increase (%)	Decrease (%)	No Change (%)	n	Increase (%)	Decrease (%)	No Change (%)
Gender								
Male	1,332	42.1	9.0	48.9	549	60.1	5.6	34.2
Female	2,388	45.4	6.5	48.0	791	64.3	5.7	30.0
Non-Binary	6	16.7	--	83.3	--	--	--	--
Total	3,726	44.2	7.4	48.4	1,340	62.6	5.7	31.7
Position								
Owner, Partner	110	8.2	23.6	68.2	54	27.8	14.8	57.4
Manager	976	44.5	5.1	50.4	388	71.6	2.3	26
Staff	2,505	45.1	7.8	47.1	704	63.5	5.5	31
Other	135	54.8	3.7	41.5	--	--	--	--
Total	3,726	44.2	7.4	48.4	1,146	64.6	4.9	30.5
Practice Setting								
Independent	269	18.6	14.5	66.9	99	27.3	19.2	53.5
Chain	864	18.8	12.5	68.8	262	64.9	4.6	30.5
Mass Merchandiser	305	38.0	9.2	52.8	101	69.3	1.0	29.7
Supermarket	288	39.2	10.1	50.7	110	71.8	8.2	20.0
Community	1,786	26.2	11.6	62.2	572	60.5	7.2	32.3
Hospital	1,029	62.1	2.4	35.5	407	64.9	4.9	30.2
Outpatient/MD Clinic	220	61.8	2.7	35.5	--	--	--	--
Other Patient Care Practice	391	57.5	5.6	36.8	222	62.2	5.0	32.9
Industry	16	50.0	18.8	31.3	34	73.5	5.9	20.6
Other Non-patient care	284	60.2	4.6	35.2	102	62.7	1.0	36.3
Total	3,726	44.2	7.4	48.4	1,337	62.6	5.6	31.8

Note: The outpatient/MD clinic practice setting was not analyzed as a separate respondent category in 2014.

Other Patient Care Practice is defined as settings where pharmacists are providing patient care and is a combination of HMO-operated pharmacies, clinic pharmacies, mail service, nuclear, nursing home/long term care and home health. Other Non-patient care is defined as settings where pharmacists may not provide patient care and is a combination of MCO/PBM, education/academia, government (FDA, etc.) and other.

Table 2.4.2 Percentage of Actively Practicing Full-Time Pharmacists with Additional Earnings by Gender, Position & Practice Setting 2019 & 2014

2019	n	Overtime	Bonus or Incentive Pay*		Profit Sharing	Stock Options
Gender						
Male	1,333	36.6	43.7		19.9	13.6
Female	2,387	37.8	46.0		19.9	18.8
Binary	6	16.7	33.3		--	--
Total	3,726	37.4	45.1		19.9	16.9
Position						
Owner, Partner	110	4.5	35.5		47.3	9.1
Manager	976	28.9	61.9		26.6	23.6
Staff	2,505	43.7	40.1		16.9	15.3
Other	135	8.1	25.2		4.4	5.2
Total	3,726	37.4	45.1		19.9	16.9
Practice Setting						
Community (n=1,785)	--	35.6	57.1		30.8	26.0
Independent	269	16.7	34.6		26.9	5.2
Chain	863	33.0	55.5		35.3	31.4
Mass Merchandiser	305	47.7	74.1		28.3	36.8
Supermarket	288	46.5	67.0		27.7	21.3
Hospital	1,030	50.2	28.2		8.4	4.9
Outpatient/MD Clinic	220	25.5	35.9		5.5	3.6
Other Patient Care Practice	391	33.3	40.2		16.8	16.3
Industry	16	25.0	68.8		31.3	56.3
Other Non-patient care	284	17.3	44.7		7.7	12.4
Total	3,666	37.4	45.1		19.9	16.9
2014	n	Overtime	Bonus Pay	Incentive Pay	Profit Sharing	Stock Options
Gender						
Male	490	36.7	44.6	14.0	22.6	19.3
Female	643	38.9	49.3	13.9	18.8	24.1
Total	1,133	38.0	47.3	13.9	20.4	22
Position						
Owner, Partner	53	7.5	35.2	7.5	32.1	3.8
Manager	383	32.4	60.9	16.2	27	33.9
Staff	696	43.4	40.7	13.2	16	16.9
Total	1,132	38	47.3	13.9	20.5	22
Practice Setting						
Community (n=482)	--	43.4	76.2	38.6	39.1	482
Independent	75	14.7	33.3	1.3	24	1.4
Chain	230	45.2	59.7	22.5	43.5	51.5
Mass Merchandiser	81	54.3	68.4	17.7	40.5	51.9
Supermarket	96	52.1	70.8	15.2	27.7	28

Hospital	349	40.7	26.4	9.5	4.9	2.6
Other Patient Care Practice	178	38.2	49.4	12.4	11.7	14.1
Industry	30	0	83.9	23.3	16.7	62.1
Other (non-patient care)	92	10.9	47.3	14.3	12.2	6.7
Total	1,131	37.9	47.3	13.9	20.5	22

*In 2014, there were two separate items for Bonus Pay and Incentive Pay. In 2019, the two items were combined into one item. The outpatient/MD clinic practice setting was not analyzed as a separate respondent category in 2014. Other Patient Care Practice is defined as settings where pharmacists are providing patient care and is a combination of HMO-operated pharmacies, clinic pharmacies, mail service, nuclear, nursing home/long term care and home health. Other (non-patient care) is defined as settings where pharmacists may not provide patient care and is a combination of MCO/PBM, education/academia, government (e.g. FDA) and other.

2.5 Tenure with Employer of Actively Practicing Pharmacists

Table 2.5.1 describes respondent tenure with their current employer. The 2019 responses suggest a decrease in the overall mean number of years employed compared to 2014 and 2009. Part of this decrease, however, may be due to more younger respondents in 2019. Within specific age group categories, for nearly all groups, the 2019 respondents had a shorter duration of work tenure compared to respondents from 2014 and 2009. This may suggest increased frequency of employer changes in among the 2019 respondents. Practicing pharmacists in the mass merchandiser and hospital settings had the lowest mean years at the current employer on average.

Focusing on the percent of pharmacists with less than three years with their current employer, the overall rate was considerably higher in the current survey than in 2014 and 2009. Again, this may partially be due to the younger response pool. Of note is that there were nearly equal rates among men and women pharmacist respondents in 2019 with less than three years with their current employer. Across specific age categories, there tended to be higher percentages of pharmacists with low tenure in most age groups in 2019. These results also are consistent with possible increased numbers of pharmacists making job changes in recent years.

Table 2.5.1 Actively Practicing Full-Time Pharmacists' Mean Years with Current Employer in Primary Employment versus Gender, Age and Practice Setting

	Mean Years with Current Employer			Percentage of Pharmacists with Less Than Three Years with Current Employer		
	2019	2014	2009	2019	2014	2009
Gender	(n = 3,714)	(n = 1,157)	(n = 901)	(n = 3,714)	(n = 1,157)	(n = 901)
Male	9.8	12.8	12.6	21.6	12	14.8
Female	8.8	10.2	10.3	21.3	16.7	18.7
Total	9.2	11.3	11.6	21.4	14.6	16.4
Age	(n = 3,722)	(n = 1,120)	(n = 901)	(n = 3,722)	(n = 1,120)	(n = 901)
≤ 30	3.4	3.7	4.4	45.1	39.3	35.7
31 - 35	5.8	6.3	6.1	20.8	21	22.2
36 - 40	7.7	9	8.4	19.1	11.6	16.2
41 - 45	9.7	10.7	9.7	14.0	19.7	15.6
46 - 50	12.3	11.4	12.2	15.5	18.5	14.5
51 - 55	13.4	13.8	12.6	11.5	8.7	17.8
56 - 60	13.7	16.6	15.2	13.6	6.8	15.3
61 - 65	16.0	15.5	15.9	10.2	7.3	9.8
66 - 70	14.8	17.2	14.7	9.6	6.7	11.5
> 70	18.1	22.5	17.1	6.9	--	0
Total	9.2	11.2	11.6	21.4	14.6	16.4
Setting	(n = 3,455)	(n = 1,153)	(n = 901)	(n = 3,455)	(n = 1,153)	(n = 901)
Independent	10.3	12.9	14.5	21.9	19.7	17.1
Chain	11.4	12.9	11.8	11.6	10.9	12
Mass merchandiser	8.6	11.3	9.1	18.8	9.6	17.4
Supermarket	10.2	10.6	9.9	15.9	9.3	12
Hospital	8.7	11.8	13.4	24.0	16.7	12.9
Other patient care	7.4	9	9.4	29.1	14.2	25.3
Industry	6.4	9.8	9.2	41.2	24	34.3
Not patient care	6.9	10	7.8	33.4	25.8	28.8
Total	9.3	11.3	11.6	21.1	14.7	16.4

2.6 Ratings of Workload for Pharmacists Working Full-Time

Tables 2.6.1 through 2.6.3 show pharmacists' ratings of workload. Overall, 71% of pharmacists in 2019 rated their workload level at their place of practice as "high" or "excessively high". In 2014 and 2009, 66%, and 68% of pharmacists rated their workload as "high" or "excessively high", respectively (see Table 2.6.1). Furthermore, 69% of pharmacists who reported working full-time in 2019 reported that their workload "increased" or "greatly increased" compared to a year ago. This proportion was higher than in 2014 (64%) and 2009 (61%).

Across practice settings, the highest proportions of pharmacists rating their workload as "high" or "extremely high" were in chain (91%) and mass merchandiser (88%) pharmacy settings. The lowest proportions of pharmacists rating their workload as "high" or "extremely high" were in independent community (48%) and ambulatory care (57%) pharmacy settings, and in both of these settings there were lower proportions of pharmacists in 2019 rating their workload high, in contrast to the other settings where the proportions in 2014 and 2009 were similar or less. These data are summarized in Figure 2.6.1.

Table 2.6.2 shows that females rated their workload higher than males and that females felt their workload has "increased" or "greatly increased" compared to a year ago when compared to males. This is similar to 2014 but different than 2009 where workload was rated similarly between males and females.

Table 2.6.3 shows that in 2019, management and staff had similar perceptions of workload. Around 70% of both management and staff believed their workload was "high" or "excessively high" or had "increased" or "greatly increased" compared to a year ago. These ratings are either the same or higher than in 2014 and 2009.

Table 2.6.1 Ratings of Workload by Pharmacists Working Full-Time by Practice Setting 2019-2009

Practice Setting	n	% Who Rated Workload Level at Their Setting as High or Excessively High	% Who Reported That Workload Has Increased or Greatly Increased vs. a Year Ago
2019			
Independent	271	48	52
Chain	872	91	86
Mass Merchandiser	306	88	80
Supermarket	290	82	81
Hospital	1063	64	65
Ambulatory Care	226	57	63
Other Patient Care	403	67	63
Other Non-patient care	483	59	53
Total	3,914	71	69
2014			
Independent	72	47	49
Chain	228	80	76
Mass Merchandiser	80	76	75
Supermarket	95	68	64
Hospital	343	63	57
Other Patient Care	178	53	62
Other Non-patient care	120	73	61
Total	1,116	66	64
2009			
Independent	106	66	60
Chain	226	72	65
Mass Merchandiser	46	67	65
Supermarket	92	69	63
Hospital	249	64	60
Other Patient Care	92	64	49
Other Non-patient care	94	72	64
Total	905	68	61

Note: Results based on respondents who provided information for a minimum set of variables (work status, gender, age, hours worked weekly at primary employment setting, and practice setting). *Full-time* is defined as working more than 30 hours weekly at the primary employer. *Chain* is a combination of small chain and large chain settings. *Hospital* is a combination of government and non-government hospitals. *Other Patient Care* is defined as settings where pharmacists are providing patient care and is a combination of HMO operated pharmacies, clinic pharmacies, mail service, nuclear, nursing home/long term care and home health. *Other* is defined as a setting where pharmacists may not provide patient care. It is a combination of "Industry" and "Other (non-patient care)" settings. It primarily includes industry, academia and government. Ratings of workload or change in workload compared to a year ago were measured using a five-point scale. The scale also has a "does not apply" option.

In 2014 *Other Patient Care* is defined as settings where pharmacists are providing patient care and is a combination of clinic pharmacies, mail service, nursing home/long term care, specialty pharmacy, ambulatory care, other patient care, other, and home health/infusion. *Other* is defined as settings where pharmacists may not provide patient care and is a combination of MCO/PBM, education/academia and other non-patient care.

Table 2.6.2 Ratings of Workload by Pharmacists Working Full-Time by Gender 2019-2009

	Male	Female	Total
2019	(n =1,430)	(n =2,537)	(n =3,967)
Percentage Who Rate Workload Level at Their Pharmacy as High or Excessively High	63	73	71
Percentage Who Report That Workload Has Increased or Greatly Increased Compared to a Year Ago	66	71	69
2014	(n = 492)	(n = 624)	(n = 1,116)
Percentage Who Rate Workload Level at Their Pharmacy as High or Excessively High	62	70	66
Percentage Who Report That Workload Has Increased or Greatly Increased Compared to a Year Ago	59	67	64
2009	(n = 519)	(n = 386)	(n = 905)
Percentage Who Rate Workload Level at Their Pharmacy as High or Excessively High	68	67	68
Percentage Who Report That Workload Has Increased or Greatly Increased Compared to a Year Ago	61	61	61

Note: Results based on respondents who provided information for a minimum set of variables (work status, gender, age, hours worked weekly at primary employment setting, and practice setting). Full-time is defined as working more than 30 hours weekly at the primary employer. Ratings of workload or change in workload compared to a year ago were measured using a five-point scale. The scale also has a “does not apply” option

Table 2.6.3 Ratings of Workload by Pharmacists Working Full-Time by Position 2019-2009

	Management	Staff	Total
2019	(n=1,443)	(n=2,351)	(n=3,974)
Percentage Who Rate Workload Level at Their Pharmacy as High or Excessively High	72	71	71
Percentage Who Report That Workload Has Increased or Greatly Increased Compared to a Year Ago	69	69	69
2014	(n = 387)	(n = 459)	(n = 846)
Percentage Who Rate Workload Level at Their Pharmacy as High or Excessively High	72	67	69
Percentage Who Report That Workload Has Increased or Greatly Increased Compared to a Year Ago	67	63	65
2009	(n = 406)	(n = 494)	(n = 900)
Percentage Who Rate Workload Level at Their Pharmacy as High or Excessively High	68	67	68
Percentage Who Report That Workload Has Increased or Greatly Increased Compared to a Year Ago	63	60	61

Note: Results based on respondents who provided information for a minimum set of variables (work status, gender, age, hours worked weekly at primary employment setting, and practice setting). Full-time is defined as working more than 30 hours weekly at the primary employer. Management includes pharmacists who are owners/partners, managers, directors, supervisors and assistant managers. Ratings of workload or change in workload compared to a year ago were measured using a five-point scale. The scale also has a “does not apply” option.

2.7 Debt Load for Pharmacists Working Full-Time

Pharmacist respondents were asked questions about the amount of their student loan debt when they graduated from pharmacy school and their current level of student loan debt. Figure 2.7.1 shows that pharmacy graduates during the latest decade (2011-2019) reported a mean student load debt of \$142,875, up from a mean of \$82,188 for graduates from 2001-2010. It also shows that the pharmacists have been able to pay-off their debt, though it takes years to do so. Figure 2.7.2 shows similar findings by age group. Figure 2.7.3 shows that female pharmacists are graduating with somewhat higher debt than males, and that this has been reported since the 2009 NPWS.

Figure 2.7.1 Debt Load at Year of Graduation and Currently by Decade

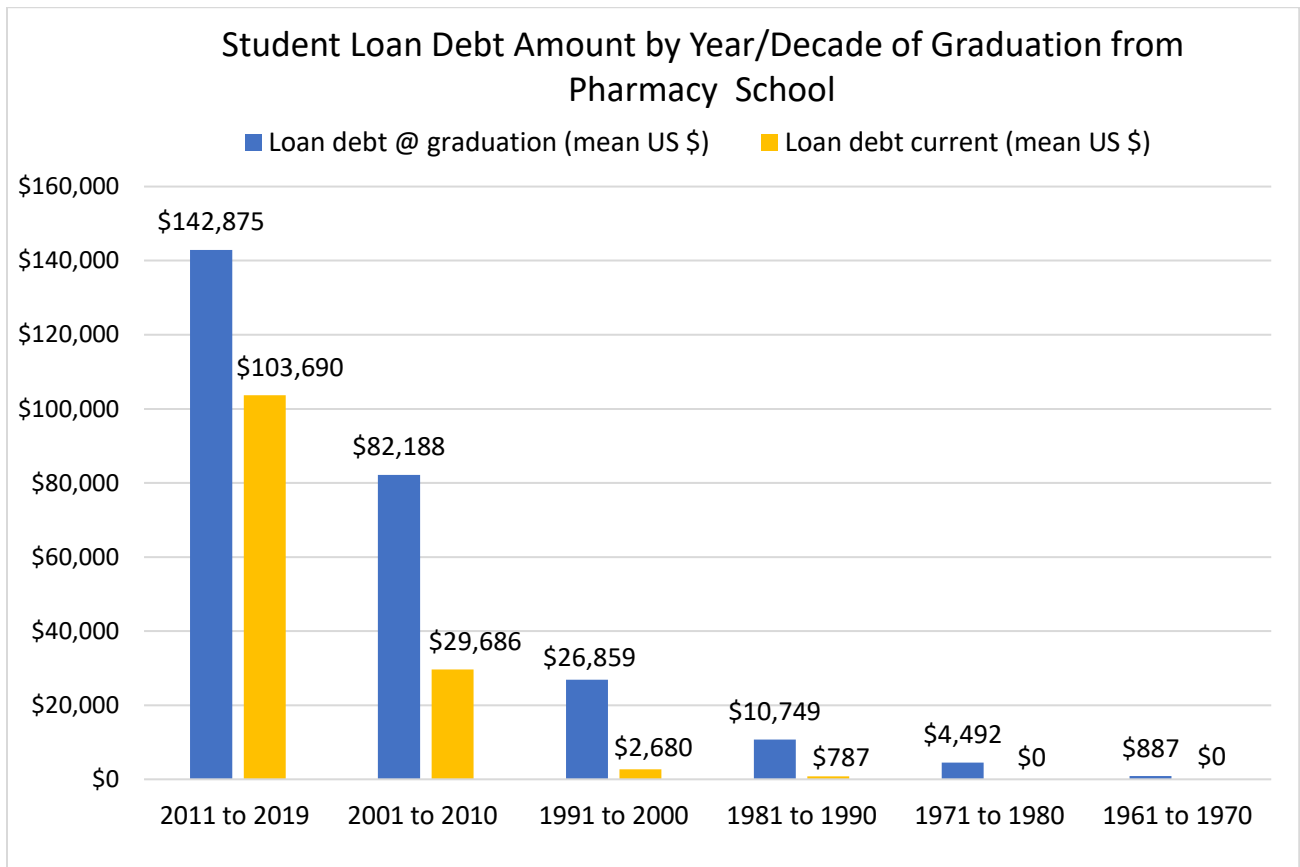


Figure 2.7.2 Debt Load at Year of Graduation and Currently by Age Groups

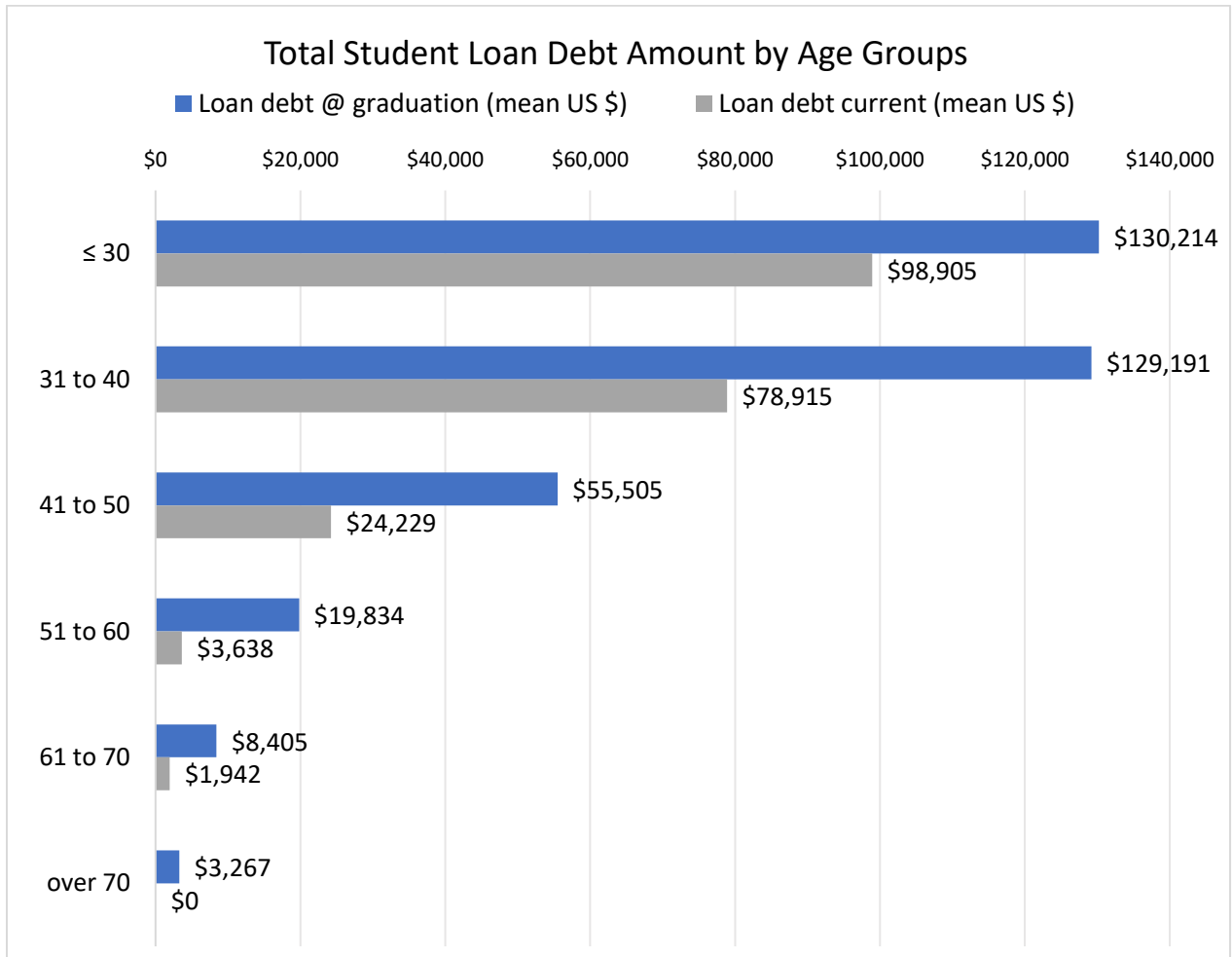
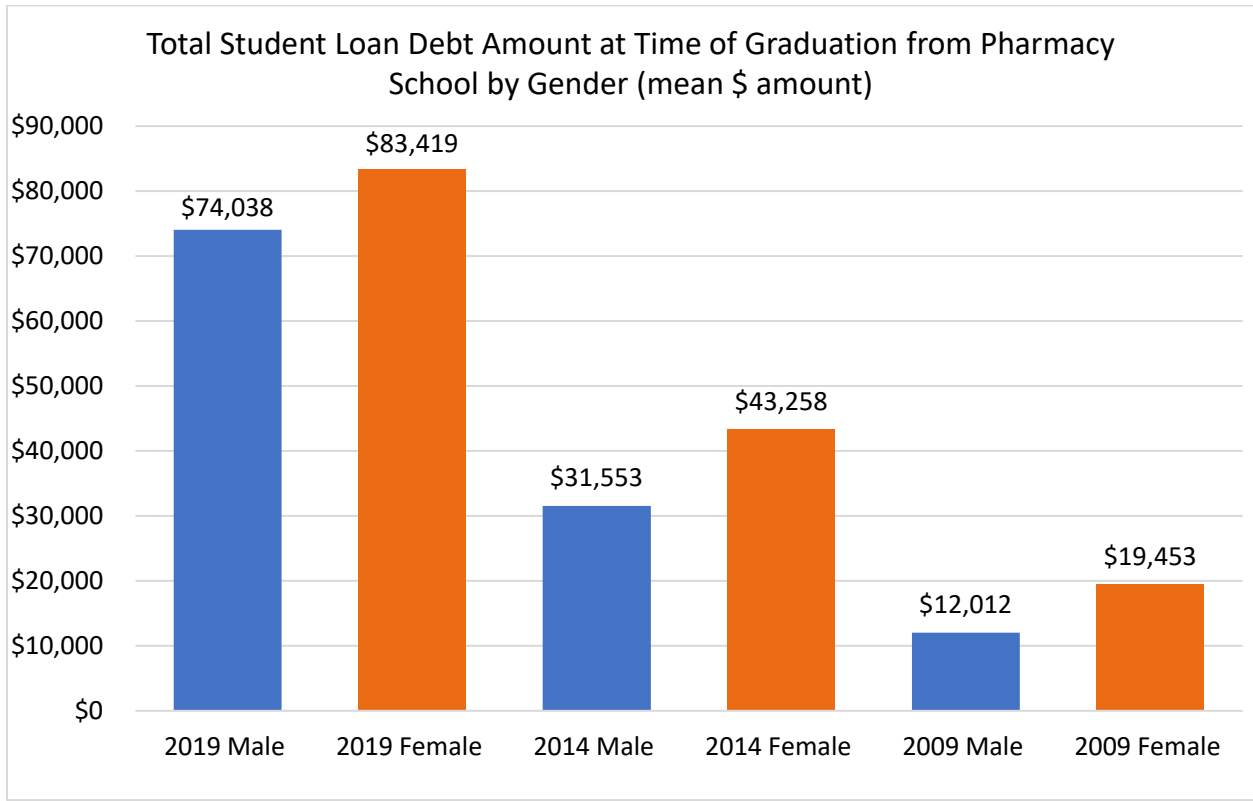


Figure 2.7.3 Debt Load for Actively Practicing Pharmacists Working Full-Time by Gender 2019 - 2009



Note: Listed years are date of NPWS survey.

Section 3 Pharmacists' Work Activities and Work Environment

3.1 Work Activities for Practicing Pharmacists Working Full-Time

Considerable variation occurs among respondents when they report the time spent in different work activities during their workday. Table 3.1.1 shows that the mean percentage of time spent on patient care activities associated with dispensing was 49 percent, though it ranged from 9-75% across work settings. The overall mean percent of time spent on patient care activities not associated with dispensing was 22 percent (range: 9-41%). These means were not much different from the 2014 NPWS (49% and 21%, respectively). Business or organizational management had the third highest mean percentage at 12 percent (range: 8-20%). Comparing time spent in activities across practice settings, respondents from traditional community pharmacy settings (i.e. independent, chain, mass merchandiser, supermarket) show a similar pattern in time spent in dispensing and non-dispensing care activities, that differs from respondents in a subgroup comprised of hospital, ambulatory and other patient care.

Table 3.1.2 shows that male and female pharmacists did not report different percentages for time in dispensing, which differs from 2009 and 2014, when males reported higher percentages for dispensing-related activities. We also see that in 2019 female pharmacists spend more time in non-dispensing care activities and less time in business management compared to male pharmacists. These two differences were also found in 2009 and 2014.

Table 3.1.3 shows that pharmacists in a management position spend less time on care activities (dispensing 50%, non-dispensing 11%) and more time in business management (27%) than do pharmacists in staff positions (55%, 28%, 5% respectively).

Table 3.1.1 Percent Time Spent in Work Activities for Pharmacists Working Full-Time by Practice Setting 2019 - 2009

FULL-TIME PRACTICE SETTING	Percent of Time Spent Performing Activities in a Typical Week (percent; mean +/-SD)						
	2019	Patient Care Services Associated with Medication Dispensing	Patient Care Services not Associated with Medication Dispensing	Business or Organization Management	Education	Research or Scholarship	Other Activities
Independent	(n = 271)	64+/-25	12+/-14	13+/-16	5+/-7	2+/-4	3+/-11
Chain	(n = 872)	75+/-20	9+/-12	8+/-11	5+/-6	1+/-3	2+/-9
Mass Merchandiser	(n = 306)	75+/-18	9+/-10	8+/-9	5+/-6	0.5+/-2	2+/-5
Supermarket	(n = 290)	72+/-20	11+/-11	9+/-12	6+/-6	0.4+/-1	2+/-8
Hospital	(n = 1,064)	34+/-31	37+/-28	13+/-25	8+/-9	3+/-6	5+/-18
Ambulatory Care	(n = 280)	32+/-34	41+/-32	12+/-21	9+/-11	3+/-6	2+/-8
Other Patient Care	(n = 403)	45+/-35	28+/-30	14+/-24	5+/-9	2+/-7	6+/-18
Other Non-patient Care	(n = 483)	9+/-25	21+/-32	20+/-30	13+/-20	14+/-23	23+/-34
Total	(n = 3,969)	49+/-35	22+/-27	12+/-21	7+/-10	3+/-10	6+/-19
	Percent of Time Spent Performing Activities in a Typical Week (percent; mean +/-SD)						
PRACTICE SETTING	2014	Patient Care Services Associated with Medication Dispensing	Patient Care Services Not Associated with Medication Dispensing	Business or Organization Management	Education	Research or Scholarship	Other Activities
Independent	(n = 75)	64+/-25	13+/-10	14+/-19	5+/-7	2+/-4	3+/-8
Chain	(n = 228)	67+/-20	13+/-12	11+/-13	5+/-6	1+/-3	3+/-7
Mass Merchandiser	(n = 77)	71+/-16	11+/-11	10+/-10	6+/-6	0.3+/-1	1+/-4

Supermarket	(n = 95)	70+/-20	10+/-9	10+/-11	8+/-9	0.6+/-2	1+/-4
Hospital	(n = 341)	41+/-31	33+/-26	11+/-23	7+/-7	3+/-7	4+/-15
Other Patient Care	(n = 178)	45+/-36	27+/-32	15+/-25	6+/-8	2+/-6	6+/-17
Other Non-Patient Care	(n = 93)	5+/-16	15+/-28	27+/-33	12+/-20	18+/-29	22+/-35
Industry	(n = 30)	0+/-0	3+/-13	30+/-36	8+/-14	32+/-36	28+/-38
Total	(n = 1,117)	49+/-33	21+/-24	13+/-22	7+/-9	4+/-13	6+/-18
Percent of Time Spent Performing Activities in a Typical Week (percent; mean +/-SD)							
PRACTICE SETTING	2009	Medication Dispensing	Patient Care Services	Business or Organization Management	Education	Research	Other Activities
Independent	(n = 104)	70+/-17	11+/-9	12+/-11	3+/-3	2+/-6	2+/-7
Chain	(n = 224)	74+/-20	11+/-11	10+/-14	3+/-5	1+/-3	1+/-7
Mass Merchandiser	(n = 46)	75+/-22	9+/-9	9+/-14	5+/-5	1+/-3	1+/-2
Supermarket	(n = 90)	78+/-18	8+/-9	9+/-14	2+/-3	1+/-3	1+/-4
Hospital	(n = 247)	43+/-35	27+/-27	15+/-26	6+/-8	3+/-6	6+/-17
Other Patient Care	(n = 90)	42+/-34	27+/-29	18+/-28	3+/-5	3+/-7	8+/-23
Other	(n = 88)	4+/-15	7+/-19	27+/-32	12+/-20	27+/-30	23+/-36
Total	(n = 889)	55+/-34	16+/-21	14+/-22	5+/-9	4+/-13	5+/-18

Note: Results based on respondents who provided information for a minimum set of variables (work status, gender, age, hours worked weekly at primary employment setting, and practice setting). *Full-time* is defined as working more than 30 hours weekly at the primary employer. *Chain* is a combination of small chain and large chain settings. *Hospital* is a combination of government and non-government hospitals. *Other Patient Care* is defined as settings where pharmacists are providing patient care and is a combination of HMO-operated pharmacies, clinic pharmacies, mail service, nuclear, nursing home/long term care and home health. *Other* is defined as a setting where pharmacists may not provide patient care. For 2009, it was a combination of "Industry" and "Other (non-patient care)" settings. It primarily includes industry, academia and government. For 2014, Industry was separated into its own category.

Definitions for Work Activities were the same in 2019, 2014 and 2009. However, the variable labels differed slightly as described below.

- Patient Care Services Associated with Medication Dispensing (2014, 2019)/Medication Dispensing (2009): preparing, distributing, and administering medication products, including associated consultation, interacting with patients about selection and use of over-the-counter products, and interactions with other professionals during the medication dispensing process.
- Patient Care Services Not Associated with Medication Dispensing (2014, 2019)/Patient Care Services (2009): assessing and evaluating patient medication related needs, monitoring and adjusting patients' treatments to attain desired outcome, and other services designed for patient care management.
- Business/Organization Management (2014, 2019 and 2009): managing personnel, finances, and systems.
- Research/Scholarship (2014, 2019)/Research (2009): discovery, development, and evaluation of products, services, and/or ideas.
- Education (2014, 2019 and 2009): teaching, precepting and mentoring of students/trainees.
- Other Activities (2014, 2019 and 2009): any activities not described in other categories.

Table 3.1.2 Percent Time Spent in Work Activities by Pharmacists Working Full-Time by Gender 2019 - 2009

Percent of Time Spent Performing Activities in a Typical Week (percent; mean +/-SD)	Male	Female	Total
Full-Time 2019	(n = 1,430)	(n = 2,538)	(n = 3,968)
Patient Care Services Associated with Medication Dispensing	49+/-35	49+/-35	49+/-35
Patient Care Services Not Associated with Medication Dispensing	20+/-24	23+/-28	22+/-27
Business/Organization Management	15+/-22	11+/-20	12+/-21
Education	7+/-10	8+/-11	7+/-10
Research/Scholarship	3+/-10	3+/-10	3+/-10
Other Activities	6+/-18	6+/-19	6+/-19
Percent of Time Spent Performing Activities in a Typical Week (percent; mean +/-SD)	Male	Female	Total
Full-Time 2014	(n = 484)	(n = 636)	(n = 1,120)
Patient Care Services Associated with Medication Dispensing	52+/-33	47+/-33	49+/-33
Patient Care Services Not Associated with Medication Dispensing	19+/-22	23+/-26	21+/-24
Business/Organization Management	16+/-24	12+/-20	13+/-22
Education	6+/-8	8+/-10	7+/-9
Research/Scholarship	4+/-13	4+/-13	4+/-13
Other Activities	4+/-14	7+/-20	6+/-18
Percent of Time Spent Performing Activities in a Typical Week (percent; mean +/-SD)	Male	Female	Total
Full-Time 2009	(n = 510)	(n = 379)	(n = 889)
Medication Dispensing	57+/-35	53+/-34	55+/-34
Patient Care Services	14+/-20	20+/-22	16+/-21
Business/Organization Management	17+/-25	11+/-17	14+/-22
Education	4+/-8	6+/-10	5+/-9
Research	4+/-11	5+/-14	4+/-13
Other Activities	5+/-17	6+/-18	5+/-18

Table 3.1.3 Percent Time Spent in Work Activities by Pharmacists Working Full-Time by Position 2019 - 2009

Percent of Time Spent Performing Activities in a Typical Week (percent; mean +/-SD)	Management*	Staff	Total
Full-Time 2019	(n = 1,123)	(n = 2,447)	(n = 3,570)
Patient Care Services Associated with Medication Dispensing	50+/-32	55+/-34	53+/-34
Patient Care Services Not Associated with Medication Dispensing	11+/-14	28+/-29	23+/-27
Business/Organization Management	27+/-28	5+/-10	12+/-20
Education	6+/-7	6+/-8	6+/-7
Research/Scholarship	2+/-7	2+/-6	2+/-6
Other Activities	4+/-12	4+/-14	4+/-13
Percent of Time Spent Performing Activities in a Typical Week (percent; mean +/-SD)	Management	Staff	Total
Full-Time 2014	(n = 429)	(n = 685)	(n = 1,114)
Patient Care Services Associated with Medication Dispensing	45+/-33	52+/-33	49+/-33
Patient Care Services Not Associated with Medication Dispensing	11+/-13	27+/-27	21+/-24
Business/Organization Management	27+/-29	5+/-9	14+/-22
Education	7+/-9	7+/-9	7+/-9
Research/Scholarship	5+/-16	3+/-11	4+/-13
Other Activities	5+/-15	6+/-19	6+/-18
Percent of Time Spent Performing Activities in a Typical Week (percent; mean +/-SD)	Management	Staff	Total
Full-Time 2009	(n = 399)	(n = 486)	(n = 885)
Medication Dispensing	50+/-33	60+/-35	55+/-34
Patient Care Services	11+/-13	21+/-25	16+/-21
Business/Organization Management	25+/-26	5+/-11	14+/-22
Education	5+/-9	5+/-9	5+/-9
Research	5+/-13	4+/-12	4+/-13
Other Activities	4+/-15	6+/-20	5+/-18

Note: Results based on respondents who provided information for a minimum set of variables (work status, gender, age, hours worked weekly at primary employment setting and practice setting). *Full-time* is defined as working more than 30 hours weekly at the primary employer. **Management* includes pharmacists who are owners/partners, managers, directors, supervisors and assistant managers.

3.2 Pharmacy Staffing Reported by Practicing Pharmacists

Table 3.2.1 summarizes the staffing environments for pharmacists, with regard to how many pharmacists and other types of staff that are on duty with them during the majority of their workday. Overall, about half of pharmacists reported they had more than one other pharmacist on duty with them. Conversely, nearly one-fourth (22%) of practicing pharmacists work without another pharmacist during their workday. It is important to note that there was considerable variability in pharmacist co-worker staffing reported across settings (18-81%). For example, chain and supermarket pharmacists least often reported they work with more than one pharmacist, while other patient care and hospital pharmacists most often have multiple pharmacist coworkers. Hospital and ambulatory care settings accounted for most situations where residents were on duty with pharmacists. Across all practice settings, more pharmacists had multiple technicians on duty during their workday.

Table 3.2.1 Pharmacy Staff Working with Practicing Pharmacists by Practice Setting 2019 – 2014

Staff Typically on Duty with Pharmacists During the Majority of the Workday (%)	Independent	Chain	Mass Merchandiser	Supermarket	Hospital	Ambulatory Care	Other Patient Care	Other Non-Patient Care	Total
2019	(n = 269)	(n = 860)	(n = 303)	(n = 288)	(n = 1013)	(n = 270)	(n = 389)	(297)	(n = 3,689)
0 pharmacist	13	40	24	37	10	22	7	15	22
1 pharmacist	45	42	48	43	13	23	13	15	28
> 1 pharmacist	42	18	28	20	77	55	81	70	50
0 resident	94	97	97	98	58	65	88	80	82
≥ 1 resident	6	3	3	2	42	35	12	20	18
0 technician	4	2	1	4	12	34	11	43	11
1-2 technicians	41	44	22	46	21	24	11	16	29
> 2 technicians	55	54	76	50	67	42	78	41	60
0 other health care practitioner	88	97	98	99	58	38	66	60	76
≥ 1 other health care practitioner	12	3	2	1	42	62	34	40	24
With Whom Pharmacists Typically Work in Proximity during a Majority of the Workday (%)	Independent	Chain	Mass Merchandiser	Supermarket	Hospital	--	Other Patient Care	Other Non-Patient Care	Total

2014	(n = 85)	(n = 239)	(n = 92)	(n = 102)	(n = 367)	-	(n = 195)	(n = 51)	(n = 1,131)
≥1 pharmacist	69	57	75	63	89	-	85	80	76
≥1 student	28	26	27	25	51	-	35	39	36
≥1 resident	7	3	1	1	34	-	7	22	15
<1 technician	7	5	3	6	12	-	17	42	11
1 - 1.5 technicians	21	17	21	30	9	-	10	13	15
2 - 2.5 technicians	30	30	12	26	11	-	13	4	18
3 technicians	20	25	20	14	13	-	10	2	16
>3 technicians	22	23	44	24	54	-	50	39	40
≥1 health care practitioner (non-pharmacists)	7	4	3	2	20	-	30	35	15

Note 1: *Chain* is a combination of small chain and large chain settings. *Hospital* is a combination of government and non-government hospitals. *Other Patient Care* is defined as settings where pharmacists are providing patient care and is a combination of HMO-operated pharmacies, clinic pharmacies, mail service, nuclear, nursing home/long term care, home health, and armed services. *Other* is defined as a setting where pharmacists may not provide patient care, and primarily includes industry, academia, managed care administrators, and government.

Note 2: Pharmacy students were not reported in 2019.

3.3 Changes Reported in Workplace

Table 3.3.1 shows the percentages of pharmacists reporting changes in their practice on a variety of factors. The percentages for decreased and increased are shown, while “no change” is the difference from the sum of those two figures subtracted from 100. The two factors with the largest reported change across all settings are “ease of pharmacists in your community finding work” (decreased 62%, increased 3%) and “your feeling of job security” (decreased 47%, increased 7%). The decrease in ease of finding work exceeded 50 percent in all settings, except other. In contrast the job security decrease varied much more across settings, with a high (68%) in chain and low (30%) in ambulatory care. Another noteworthy finding is that over half of pharmacists in chain (54%) and mass merchandiser (55%) settings reported decreases in the number of technicians at their workplaces. About one-third (33%) of all respondents reported an increase in communicating with prescribers, with a range of 17-50%.

Table 3.3.1 Changes Reported in the Workplace over the Past Year by Practice Setting

	Independent	Chain	Mass Merchandise	Super- market	Hospital	Ambulatory Care	Other Patient Care	Other	Total
2019 (% reporting)	(n = 271)	(n = 871)	(n = 306)	(n = 289)	(n = 1,063)	(n = 280)	(n = 403)	(n = 483)	(n=3,966)
Flexibility in your work schedule:									
Decreased	16	37	42	36	20	18	22	12	25
Increased	14	4	5	5	10	13	13	21	10
Number of pharmacists at work at your workplace:									
Decreased	16	35	37	28	18	15	20	13	24
Increased	13	4	5	7	29	27	32	22	18
Number of technicians at your workplace:									
Decreased	18	54	55	37	24	14	22	8	31
Increased	13	7	6	15	22	20	31	13	16
Pharmacist turnover at your workplace:									
Decreased	4	3	3	3	3	4	6	5	4
Increased	14	42	33	33	36	24	27	23	32
Communicating with prescribers:									
Decreased	8	14	11	13	2	1	6	5	7
Increased	34	30	40	30	39	50	26	17	33
Hours you work as the only pharmacist:									
Decreased	10	5	3	8	7	6	7	3	6
Increased	21	53	56	39	14	15	18	7	28
Ease of pharmacists in your community finding work:									
Decreased	57	72	75	72	59	54	59	44	62
Increased	5	3	3	3	2	1	3	2	3
Your feeling of job security:									
Decreased	37	68	67	62	34	30	44	34	47
Increased	8	3	2	2	8	10	9	13	7

3.4 Services Provided

Selected use of branching in the online survey allowed responses about service delivery in different practice settings to be collected. A combined set of services was included for ambulatory care and hospital pharmacists, with a second set of services for community pharmacy respondents. In 2019, actively practicing pharmacists in ambulatory care and hospital acute care settings reported the pharmacy services offered at their practice site. Overall, the most common services reported by pharmacists in ambulatory care settings included medication education or counseling (61.6%), medication reconciliation (48.5%), starting/stopping/modifying drug therapy independent from a patient-specific order or prescription (45.1%) and disease state management (39.9%) (Table 3.4.1). The most common pharmacy services reported by pharmacists in hospital acute care settings in 2019 included drug level monitoring (87.2%), therapeutic drug interchange (81.5%), ordering laboratory tests (72.7%), and medication reconciliation (71.1%) (Table 3.4.1).

Most community pharmacists reported administering vaccines (90.0%), patient medication assistance (e.g. coupons, discounts) (83.4%), naloxone dispensing (72.2%), medication therapy management (MTM) services (66.7%) and medication synchronization (66.5%) (Table 3.4.2). Other selected services for the community setting included comprehensive medication management (43.9%), medication reconciliation (38.7%), opioid deprescribing (25.1) and point of care testing (19.6%).

When asked about monitoring specific conditions over the past month, the highest percentages reported by community pharmacists were diabetes (35.7%) and hypertension (35.6%) (Table 3.4.3). Also, community pharmacy respondents were asked about documenting clinical data for specific conditions over the past month. The highest reported rate was for hypertension (10.1%), with cholesterol being the next highest (4.6%) (Table 3.4.4).

Table 3.4.1 Services Provided at Ambulatory & Hospital Settings as Reported by Actively Practicing Pharmacists 2019

Type of Service n (%)	Ambulatory Care Clinical (n = 268)	Hospital / Acute Care Clinical (n =578)
Medication education or counseling	165 (61.6)	383 (66.3)
Medication reconciliation	130 (48.5)	411 (71.1)
Start, modify, or stop drug therapy independent from a patient-specific order	121 (45.1)	356 (61.6)
Disease state management	107 (39.9)	248 (42.9)
Comprehensive medication management	106 (39.6)	270 (46.7)
Therapeutic drug interchange	104 (38.8)	471 (81.5)
Device education/training	101 (37.7)	116 (20.1)
Order laboratory tests	100 (37.3)	420 (72.7)
Patient medication assistance (e.g. access to medication coupons, discounts)	94 (35.1)	149 (25.8)
Drug level monitoring	81 (30.2)	504 (87.2)
Physical assessment (vitals, etc.)	60 (22.4)	40 (6.9)
Remote patient monitoring	51 (19)	80 (13.8)
Administer vaccinations	23 (8.6)	13 (2.2)
Opioid deprescribing	20 (7.5)	83 (14.4)
Pharmacogenomic testing and/or counseling	8 (3.0)	10 (1.7)
Administer drugs orally	6 (2.2)	13 (2.2)
Administer drugs (i.e. non-vaccines) by injection	5 (1.9)	12 (2.1)
Other	4 (1.5)	13 (2.2)
Skin testing	1 (0.4)	6 (1.0)
Code response	0 (0)	0 (0)

Table 3.4.2 Services Offered at Community Pharmacy Settings as Reported by Actively Practicing Pharmacists 2019

Type of Service (frequency & percentage of pharmacists whose site offers each type of service)	Independent	Small Chain	Large Chain	Mass Merchandiser	Supermarket	Health System Retail	Total
N=	394	62	921	372	317	56	2,122
Administering vaccines	253 (64.2)	46 (74.2)	903 (98.0)	367 (98.7)	313 (98.7)	28 (50.0)	1,910 (90.0)
Patient medication assistance (e.g. coupons, discounts)	291 (73.9)	48 (77.4)	809 (87.8)	301 (80.9)	283 (89.3)	38 (67.9)	1,770 (83.4)
Naloxone dispensing	213 (54.1)	32 (51.6)	703 (76.3)	321 (86.3)	232 (73.2)	31 (55.4)	1,532 (72.2)
Medication therapy management (MTM) services	274 (69.5)	44 (71.0)	521 (56.6)	259 (69.6)	290 (91.5)	28 (50.0)	1,416 (66.7)
Medication synchronization	262 (66.5)	37 (59.7)	680 (73.8)	156 (41.9)	251 (79.2)	25 (44.6)	1,411 (66.5)
Comprehensive medication management	193 (49.0)	31 (50.0)	345 (37.5)	146 (39.2)	198 (62.5)	18 (32.1)	931 (43.9)
Medication reconciliation	200 (50.8)	26 (41.9)	338 (36.7)	123 (33.1)	116 (36.6)	19 (33.9)	822 (38.7)
Adherence packaging	220 (55.8)	32 (51.6)	174 (18.9)	71 (19.1)	56 (17.7)	12 (21.4)	565 (26.6)
Opioid deprescribing	81 (20.6)	15 (24.2)	206 (22.4)	162 (43.5)	55 (17.4)	14 (25.0)	533 (25.1)
Disease state management	100 (25.4)	12 (19.4)	204 (22.1)	88 (23.7)	96 (30.3)	9 (16.1)	509 (24.0)
Durable medical equipment	136 (34.5)	22 (35.5)	163 (17.7)	71 (19.1)	92 (29.0)	3 (5.4)	487 (23.0)
Point of care testing	43 (10.9)	6 (9.7)	91 (9.9)	156 (41.9)	116 (36.6)	4 (7.1)	416 (19.6)
Administering other injections	108 (27.4)	21 (33.9)	144 (15.6)	43 (11.6)	76 (24.0)	3 (5.4)	395 (18.6)
Specialized compounding	133 (33.8)	17 (27.4)	91 (9.9)	17 (4.6)	20 (6.3)	6 (10.7)	284 (13.4)
Pharmacogenomic testing and/or counseling	26 (6.6)	5 (8.1)	28 (3.0)	12 (3.2)	11 (3.5)	1 (1.8)	83 (3.9)

Table 3.4.3 Frequency of Monitoring at Community Pharmacy Sites by Practice Settings 2019

Monitoring in past month (percentage of pharmacists who reported activity)	Independent	Small Chain	Large Chain	Mass Merchandiser	Supermarket	Health System Retail	Total
N =	394	62	921	372	317	56	2122
Diabetes	125 (31.7)	29 (46.8)	317 (34.4)	148 (39.8)	117 (36.9)	21 (37.5)	757 (35.7)
Hypertension	134 (34.0)	22 (35.5)	313 (34.0)	150 (40.3)	117 (36.9)	19 (33.9)	755 (35.6)
High cholesterol	108 (27.4)	24 (38.7)	235 (25.5)	120 (32.3)	106 (33.4)	15 (26.8)	608 (28.7)
Opioid use / deprescribing	86 (21.8)	18 (29)	213 (23.1)	157 (42.2)	70 (22.1)	15 (26.8)	559 (26.3)
Antidepressant use	77 (19.5)	9 (14.5)	205 (22.3)	79 (21.2)	57 (18.0)	14 (25.0)	441 (20.8)
Warfarin / INR value	38 (9.6)	6 (9.7)	85 (9.2)	45 (12.1)	29 (9.1)	8 (14.3)	211 (9.9)
None of these in the last month	53 (13.5)	9 (14.5)	194 (21.1)	44 (11.8)	34 (10.7)	11 (19.6)	345 (16.3)

Table 3.4.4 Frequencies of Specific Documented Clinical Indicators in Community Pharmacies 2019

Monitoring Target ^A	Frequency (%)
Blood pressure reading	215 (10.1)
Cholesterol level/ lipid panel	98 (4.6)
Hemoglobin A1c reading	53 (2.5)
Pain scale of opioid	30 (1.4)
INR level for warfarin	28 (1.3)
Depression scale (e.g. PHQ9)	7 (0.3)

A: Pharmacy computer systems increasingly allow for pharmacists to document lab values and patient reported outcomes. Which of the following have you documented for a patient during the last month you worked? N=2,122.

3.5 Opioid Focused Activity from the Community Pharmacy Perspective

A new topic in the NPWS was to ask pharmacists in community settings about their involvement with prescription drug monitoring and naloxone dispensing. Table 3.5.1 shows that almost all of the community-based pharmacists in the 2019 sample reported being registered with their state's prescription drug monitoring program (PDMP). There was some variation by community pharmacy setting regarding the percent of opioid and benzodiazepine prescriptions for which they consult the PDMP, with pharmacists practicing in mass merchandiser and supermarket settings having the highest rates of PDMP consultation.

The 2019 sample responded to several items on Naloxone dispensing and there was variation according to community pharmacy practice setting (Table 3.5.2). Large chains and mass merchandiser pharmacies were the most likely to dispense naloxone based on a standing order. Independent and small chain pharmacists or more likely to report dispensing Naloxone based on a patient-specific prescription order or not dispensing Naloxone at all. Overall, however most pharmacists reported dispensing naloxone less than once a month and only 6.2% reported dispensing Naloxone once a week.

Table 3.5.3 shows that most pharmacists in the sample supported pharmacists dispensing naloxone, however, 18.6% reported having mixed feelings. Only 28.3% of pharmacists reported being very confident in their ability to administer Naloxone.

Table 3.5.1 PMP Activities by Community Pharmacy Setting 2019

PDMP Activities	Independent (n=401)	Small Chain (n = 63)	Large Chain (n = 944)	Mass Merchandiser (n = 381)	Supermarket (n = 321)	Health System Retail (n = 56)	Total (N = 2,166)
Registered with state's prescription monitoring program (PDMP): n (% YES)	374 (94.0)	54 (87.1)	919 (98.2)	376 (98.9)	314 (98.4)	55 (100.0)	2,092 (97.3)
Percent of OPIOID prescriptions checked in the PDMP: Mean (SD)	64.18 (38.2)	72.75 (33.6)	61.36 (33.7)	87.34 (24.8)	78.47 (32.1)	61.74 (39.9)	69.48 (34.6)
Percent of BENZODIAZAPINE prescriptions checked in the PDMP: Mean (SD)	44.43 (39.4)	49.75 (33.4)	35.94 (34.3)	65.32 (36.5)	62.38 (39.4)	37.19 (39.7)	47.17 (38.6)

Table 3.5.2 Naloxone Dispensing Activities of Community Pharmacists by Practicing Setting 2019

Naloxone Dispensing Activities n (% Yes)	Independent (n=401)	Small Chain (n = 63)	Large Chain (n = 944)	Mass Merchandiser (n = 381)	Supermarket (n = 321)	Health System Retail (n = 56)	Total (n = 2,166)
Dispense naloxone without a prescription based on a collaborative practice agreement	50 (12.5)	9 (14.3)	284 (30.1)	85 (22.3)	75 (23.4)	10 (17.9)	513 (23.7)
Dispense naloxone based on a standing order	112 (27.9)	23 (36.5)	598 (63.3)	292 (76.6)	186 (57.9)	29 (51.8)	1240 (57.2)
Dispense naloxone based on a state rule (e.g. special waiver, provision)	109 (27.2)	14 (22.2)	178 (18.9)	47 (12.3)	54 (16.8)	7 (12.5)	409 (18.9)
Dispense naloxone pursuant to a patient-specific prescription	178 (44.4)	28 (44.4)	281 (29.8)	93 (24.4)	121 (37.7)	31 (55.4)	732 (33.8)
Do not dispense naloxone	72 (18.0)	11 (17.5)	20 (2.1)	6 (1.6)	9 (2.8)	2 (3.6)	120 (5.5)
Frequency that naloxone was dispensed in the past year n (%)	Independent (n=401)	Small Chain (n = 63)	Large Chain (n = 944)	Mass Merchandiser (n = 381)	Supermarket (n = 321)	Health System Retail (n = 56)	Total (n = 2,166)
Missing	76	12	28	7	11	3	137
Never	50 (15.4)	7 (13.7)	157 (17.1)	55 (14.7)	60 (19.4)	11 (20.8)	340 (16.8)
Less than once a month	170 (52.3)	23 (45.1)	513 (56.0)	158 (42.2)	169 (54.5)	25 (47.2)	1058 (52.1)
At least once a month	79 (24.3)	14 (27.5)	200 (21.8)	135 (36.1)	66 (21.3)	12 (22.6)	506 (24.9)
At least once a week	26 (8.0)	7 (13.7)	46 (5.0)	26 (7.0)	15 (4.8)	5 (9.4)	125 (6.2)
Practice site regularly keeps naloxone on hand n (% Yes)	280 (70.5)	49 (79.0)	895 (95.8)	369 (97.1)	290 (91.2)	50 (90.9)	1933 (90.1)

Table 3.5.3 Pharmacist Support for Dispensing and Confidence in Recommending and Administering Naloxone 2019

Support pharmacists or pharmacies dispensing naloxone without a prescription	Independent (n=401)	Small Chain (n = 63)	Large Chain (n = 944)	Mass Merchandiser (n = 381)	Supermarket (n = 321)	Health System Retail (n = 56)	Total (n = 2166)
Missing	4	1	8	2	2	1	18
n (%) Strong support	189 (47.6)	30 (48.4)	527 (56.3)	261 (68.9)	163 (51.1)	28 (50.9)	1198 (55.8)
Some support	99 (24.9)	11 (17.7)	191 (20.4)	54 (14.2)	66 (20.7)	17 (30.9)	438 (20.4)
Mixed	79 (19.9)	17 (27.4)	178 (19.0)	50 (13.2)	67 (21.0)	8 (14.5)	399 (18.6)
Some against	15 (3.8)	2 (3.2)	18 (1.9)	7 (1.8)	7 (2.2)	2 (3.6)	51 (2.4)
Strong against	15 (3.8)	2 (3.2)	22 (2.4)	7 (1.8)	16 (5.0)	0 (0.0)	62 (2.9)
Confidence in recommending naloxone to a patient	Independent (n=401)	Small Chain (n = 63)	Large Chain (n = 944)	Mass Merchandiser (n = 381)	Supermarket (n = 321)	Health System Retail (n = 56)	Total (n = 2166)
Missing	5	1	8	1	2	1	18
n (%) Not at all confident	34 (8.6)	6 (9.7)	49 (5.2)	15 (3.9)	29 (9.1)	8 (14.5)	141 (6.6)
Somewhat confident	165 (41.7)	27 (43.5)	344 (36.8)	101 (26.6)	127 (39.8)	19 (34.5)	783 (36.5)
Very confident	197 (49.7)	29 (46.8)	543 (58.0)	264 (69.5)	163 (51.1)	28 (50.9)	1224 (57.0)
Confidence in administering naloxone to a patient	Independent (n=401)	Small Chain (n = 63)	Large Chain (n = 944)	Mass Merchandiser (n = 381)	Supermarket (n = 321)	Health System Retail (n = 56)	Total (n = 2166)
Missing	4	1	8	1	3	1	18
n (%) Not at all confident	93 (23.4)	15 (24.2)	241 (25.7)	65 (17.1)	74 (23.3)	13 (23.6)	501 (23.3)
Somewhat confident	189 (47.6)	28 (45.2)	461 (49.3)	179 (47.1)	158 (49.7)	25 (45.5)	1040 (48.4)
Very confident	115 (29.0)	19 (30.6)	234 (25.0)	136 (35.8)	86 (27.0)	17 (30.9)	607 (28.3)

Section 4 Pharmacists' Quality of Work-Life

4.1 Work Attitudes

The quality of work-life section included validated items to measure pharmacists' attitudes about work-home conflict, satisfaction, commitment and control in the work environment. Responses for pharmacists working full-time are reported in this section of the report. The tables include data from the 2014 workforce survey for comparison. In general, attitudes in 2019 were less favorable than in 2014.

Table 4.1.1 summarizes work attitude responses for pharmacists by practice setting. The number of items were greatly reduced in 2019, thus direct contrasts on all items between the two surveys is not entirely possible but general trends are noted. The table reports the percent of pharmacist respondents that had scores above the midpoint of the summated scale or individual item measures (high levels) of work-to-home conflict (work spills over to home life), job satisfaction, and organizational commitment, home-to-work conflict (home life spills over to work) and control in the work environment.

In 2019, overall 65 percent of the respondents reported high levels of work-to-home conflict with a range of 45-82% (Table 4.1.1). These levels were greater than those reported in 2014. In 2019, respondents in community pharmacy (independent, chain, mass merchandiser, and supermarket) practice settings were experiencing lower levels of job satisfaction than in 2014. Job satisfaction is particularly high in ambulatory care (78%) and other (non-patient care) settings (79%) in 2019. Levels of organizational commitment are moderate to low in most practice settings except independent pharmacy (79% in 2019, 88% in 2014). A small proportion of respondents reported high levels of home-to-work conflict (12%), with the highest level in independent community pharmacy (16%) and the lowest in ambulatory care and supermarket (10% each). Overall, only one-third of respondents felt they had a high level of control in their work environment with the higher levels in independent community pharmacy (50%) ambulatory care (50%) and other (non-patient care) (65%) areas. The general pattern represents one in which levels of the work-attitudes decreased, with notable drops in the community pharmacy sector, while conflict increased in all sectors since 2014.

Table 4.1.1 Work Attitudes for Pharmacists Working Full-Time by Practice Setting 2019-2014

Work Attitude (percentage experiencing high levels of each work attitude) *	Independent	Chain	Mass Merchandiser	Super-market	Hospital	Ambulatory Care	Other Patient Care	Other	Total
2019^a	(n=271)	(n=872)	(n=306)	(n=290)	(n=1,062)	(n=226)	(n=403)	(n=403)	(n=3,013)
Work-to-Home Conflict	61	82	79	77	63	45	56	48	65
Job Satisfaction	68	27	36	42	74	78	71	79	58
Organizational Commitment	79	23	31	33	59	59	50	63	48
Home-to-Work Conflict	16	12	11	10	11	10	12	12	12
Control in Work Environment	50	12	14	16	38	50	42	65	34
Work Attitude (percentage experiencing high levels of each work attitude) *	Independent	Chain	Mass Merchandiser	Super-market	Hospital	--	Other Patient Care	Other	Total
2014^b	(n = 76)	(n = 233)	(n = 82)	(n = 95)	(n = 352)	--	(n = 178)	(n = 126)	(n = 1,142)
Work-to-Home Conflict	51	58	62	55	53	--	46	41	52
Job Satisfaction	75	46	49	64	68	--	74	83	65
Organizational Commitment	88	46	49	59	65	--	61	76	61
Home-to-Work Conflict	14	11	2	4	9	--	8	11	9
Control in Work Environment	61	30	18	31	31	--	37	57	34

* High level was defined as scoring above the midpoint of an item or summated score.

Chain is a combination of small chain and large chain settings. Hospital is a combination of government and non-government hospitals. Other Patient Care Practice is defined as settings where pharmacists are providing patient care and is a combination of HMO operated pharmacies, clinic pharmacies, mail service, nuclear, nursing home/long term care, home health, and armed services. "Other" is defined as a setting where pharmacists may not provide patient care. It is a combination of "Industry" and "Other (non-patient care)" settings.

^a In 2019: Work-to-Home Conflict: 1-item (1 = strongly disagree to 4=strongly agree), Job Satisfaction: 3-item summated scale (1=very dissatisfied to 4=very satisfied), Organizational commitment: 2 item summated scale (1 = strongly disagree to 4=strongly agree), Home-to-Work Conflict : 1-item (1 = strongly disagree to 4=strongly agree), Control in Work Environment: 3-item summated scale (0=no control to 3= a lot)

^b In 2014: Work-to-Home Conflict and Home-to-Work Conflict were two-item measures, and Organizational Commitment was a four-item measure (1 = strongly disagree, 7 = Strongly agree). Job Satisfaction was a five-item measure (1 = strongly disagree to 5 = strongly agree). Control in the Work Environment was a six-item measure using a five-point scale (0 = no control to 4 = total control).

4.2 Job Stress

Tables 4.2.1 and 4.2.2 describe job stress items reported by full-time respondents by practice setting and gender. The number of items were greatly reduced or re-worded in 2019 thus direct contrasts on all items between the two surveys is not possible. The findings reported in the tables focus on the percentages of pharmacists reporting experiences or aspects that are “highly stressful.” The top-rated item in 2019 was “having so much work to do that everything cannot be done well” (43%) which was similar to findings in 2014. It was the most stressful event for all practice settings except independent community pharmacy (23%). “Working at current staffing levels” was the second highest stressor for chain (71%), mass merchandiser (66%) and supermarket pharmacists (62%) in 2019. At least 45% of pharmacists in these settings found “dealing with difficult patients” as “highly stressful” while less than 17% of ambulatory care pharmacists found this to be the case. In general, these proportions were higher in each practice setting except hospital (11%) and other patient care (19%) in 2014.

“Possessing inadequate information regarding a patient’s medical condition” was “highly stressful” for at least 25% of chain, mass merchandiser and supermarket pharmacists, while less than 18% of all other practice settings found this “highly stressful”. At least 50% of chain and mass merchandiser pharmacists indicated that “fearing that a patient will be harmed by a medication error” as “highly stressful”. A similarly worded item “feeling that I would make a mistake in treating a patient” as not rated as high in these practice settings (33% and 46%, respectively) in 2014.

In 2019, female pharmacists rated each stressor higher than males (Table 4.2.2). “Having so much work to do that everything cannot be done well” and “fearing that a patient will be harmed by a medication error” were rated at least 8 points higher by females (49% and 39%, versus 41% and 30%, respectively). These same patterns were seen in 2014 with a greater proportion of female pharmacists finding many aspects “highly stressful” in comparison to males.

An analysis of the quality of work-life measures suggest that stress, conflict and lack of control continue to be issues for many pharmacists. There were significant drops in the amount of control pharmacists felt in the community pharmacy environments. In addition, many pharmacists are struggling with work-home conflict and commitment to the organization is decreasing. The good news is that job satisfaction is high in ambulatory care, hospital and other non-patient care settings. Action needs to be taken to address these work-life issues in pharmacy practice settings.

Table 4.2.1 Job Stressors for Pharmacists Working Full-Time by Practice Setting 2019 - 2014

Work Attitude (percentage experiencing high levels of each work attitude)	Independent	Chain	Mass Merchantiser	Super-market	Hospital	Ambulatory Care	Other Patient Care	Other	Total
2019	(n=270)	(n=867)	(n=306)	(n=290)	(n=1,054)	(n=290)	(n=397)	(n=434)	(n=3,840)
Having so much work to do that everything cannot be done well	23	75	66	62	35	27	35	27	43
Working at current staffing levels	15	71	56	49	23	23	24	18	37
Fearing that a patient will be harmed by a medication error	21	52	52	44	27	23	23	21	35
Dealing with difficult patients	24	47	45	45	10	17	15	16	29
Possessing inadequate information regarding a patient's medical condition	18	27	29	26	15	10	15	13	20
2014	(n = 76)	(n = 236)	(n = 82)	(n = 95)	(n = 346)	--	(n = 170)	(n = 100)	(n = 1,105)
Being interrupted by phone calls or people while performing job duties	30	40	39	32	36	--	32	16	34
Not being staffed with an adequate number of pharmacists	15	42	33	29	38	--	32	30	34
Not being staffed with an adequate number of technicians	18	67	53	45	32	--	34	28	42
Doing excessive paperwork or documentation (e.g., third-party work, medication records)	38	37	27	30	19	--	24	19	27
Learning new technology/automation	4	11	6	7	12	--	11	6	10
Having to meet quotas	5	54	51	39	26	--	28	29	36
Having so much work to do that everything cannot be done well	21	60	61	56	41	--	35	37	45
Dealing with difficult coworkers	22	17	17	26	25	--	28	21	23

Disagreeing with other health care professionals concerning the treatment of patients	9	8	1	6	10	--	10	4	8
Keeping up with new developments in order to maintain professional competency	8	10	5	3	11	--	13	6	9
Dealing with difficult patients	21	40	32	38	11	--	19	5	24
Possessing inadequate information regarding a patient's medical condition	10	13	16	8	14	--	19	6	13
Feeling ultimately responsible for patient outcomes from drug therapy	12	15	18	16	17	--	19	12	16
Feeling that I will make a mistake in treating a patient	22	33	46	30	27	--	27	20	29
Delegating previous or new tasks to pharmacy technicians	4	12	4	6	6	--	11	0	7

Note: Full-time pharmacists worked more than 30 hours weekly in their primary employment setting. Chain is a combination of small chain and large chain settings. Hospital is a combination of government and non-government hospitals. Other Patient Care Practice is defined as settings where pharmacists are providing patient care and is a combination of HMO operated pharmacies, clinic pharmacies, mail service, nuclear, nursing home/long term care, home health, and armed services. "Other" is defined as a setting where pharmacists may not provide patient care. It is a combination of "Industry" and "Other (non-patient care)" settings

For 2019: Each stress item was measured using a five-point scale 1= Not at All Stressful 2 = Not Too Stressful, 3= Somewhat Stressful 4 = Highly Stressful, 99=Does not Apply/Missing

For 2014: Each stress item was measured using a five-point scale 0 = Does Not Apply, 1 = Not at All Stressful, 2 = Not Too Stressful, 3 = Somewhat Stressful, 4 = Highly Stressful

Table 4.2.2 Job Stressors for Pharmacists Working Full-Time by Gender 2019 - 2014

Stress Event (percentage experiencing high levels of stress by event)	Male	Female	Total
2019	(n=482)	(n=970)	(n=1,452)
Having so much work to do that everything cannot be done well	41	49	46
Working at current staffing levels	34	39	37
Fearing that a patient will be harmed by a medication error	30	39	35
Dealing with difficult patients	25	31	29
Possessing inadequate information regarding a patient's medical condition	17	22	20
2014	(n = 490)	(n = 618)	(n = 1,108)
Being interrupted by phone calls or people while performing job duties	34	34	34
Not being staffed with an adequate number of pharmacists	31	37	34
Not being staffed with an adequate number of technicians	37	46	42
Doing excessive paperwork or documentation (e.g., third-party work, medication records)	29	25	27
Learning new technology/automation	11	9	10
Having to meet quotas	32	40	36
Having so much work to do that everything cannot be done well	41	49	45
Dealing with difficult coworkers	20	25	23
Disagreeing with other health care professionals concerning the treatment of patients	7	10	8
Keeping up with new developments in order to maintain professional competency	7	12	9
Dealing with difficult patients	22	26	24
Possessing inadequate information regarding a patient's medical condition	15	12	13
Feeling ultimately responsible for patient outcomes from drug therapy	14	18	17
Feeling that I will make a mistake in treating a patient	26	33	30
Delegating previous or new tasks to pharmacy technicians	7	8	7

Note: Full-time pharmacists worked more than 30 hours weekly in their primary employment setting.

For 2019: Each stress item was measured using a five-point scale 1= Not at All Stressful 2 = Not Too Stressful, 3= Somewhat Stressful 4 = Highly Stressful, 99=Does not Apply/Missing

For 2014: Each stress item was measured using a five-point scale 0 = Does Not Apply, 1 = Not at All Stressful, 2 = Not Too Stressful, 3 = Somewhat Stressful, 4 = Highly Stressful

4.3 Current Job / Job Market

Respondents provided perspective on their potential mobility within the labor market. Respondents were asked to provide their views on job availability and whether they might search or change jobs. Younger pharmacists and those practicing in community pharmacy settings potentially are more “restless” with their current job; they have higher propensity to search for something different and possibly leave their current job within the next year. A higher percentage of younger pharmacists were aware of vacant positions that would be a good fit for them.

Table 4.3.1 Full-time Practicing Pharmacists' Awareness of Pharmacist Jobs and Likelihood to Search for or Leave Their Current Job 2019

Variable	2019			
	n	Aware of Jobs (%)	Likely or Very Likely to Search (%)	Likely or Very Likely to Leave (%)
Overall	3,725	22.5	35.8	19.7
Gender				
Male	1,332	24.6	33.6	18.5
Female	2,387	21.3	36.9	20.4
Position				
Owner, Partner	110	13.6	8.3	7.4
Manager	975	22.6	38.8	20.8
Staff	2,505	22.1	36.3	20.2
Practice Setting				
Community	1,785	18.5	42.9	22.9
Hospital	1,029	27.1	28.3	16.2
Outpatient/MD Clinic	220	25.0	28.6	13.7
Other Patient Care	391	20.2	31.2	17.2
Not Patient Care	300	31.7	27.3	20.6
Age Category				
Up to 30	728	31.3	44.8	24.6
31 to 40	1,180	23.9	41.0	19.7
41 to 50	672	18.5	33.9	17.7
51 to 60	757	18.1	28.1	15.8
61 to 70	356	16.9	21.4	22.2

Note: Included in the table are approximately 4% of respondents that reported that they would be likely to retire within the next year; effectively no differences in the percent likely to retire occurred for any of the categories for table breakdowns except for the oldest age category. There were 32 pharmacists older than 70 years of age that are not reported in the age category breakdown. There were 135 respondents with "other" positions that are included in the total results for position breakdowns.

Q 4.1: I am aware of vacant pharmacist job openings that would be a good fit for me.

Q 4.2: How likely is it that you will search for other employment within the next year? How likely is it that you will actually leave your current employment within the next year?

Respondents also were asked to reflect on the labor market within their practice locality. Respondents rated the demand for generalist/staff pharmacists in their local area using the following scale: 1 = very low demand; 2 = low demand; 3 = in balance; 4 = moderate demand; and 5 = high demand. A similar rating scale has been used in surveys of employers to assess the supply/demand balance for pharmacists in the labor market. Overall, pharmacist respondents viewed the employment arena as having a low demand for staff or generalist pharmacists. The lowest ratings were reported by community pharmacists and by pharmacists in the “41 to 50” age category.

Table 4.3.2 Full-time Pharmacists’ Ratings of the Demand for Generalist/Staff Pharmacists in Their Local Area by Practice Setting

Variable	n	Average Demand Rating
Overall	3,726	1.95
Gender		
Male	1,333	1.96
Female	2,387	1.95
Position		
Owner, Partner	110	2.10
Manager	976	2.01
Staff	2,505	1.92
Practice Setting		
Community	1,786	1.86
Hospital	1,030	2.04
Outpatient/MD Clinic	219	2.16
Other Patient Care	391	1.99
Not Patient Care	300	2.03
Age Category		
Up to 30	728	1.99
31 to 40	1,180	1.89
41 to 50	671	1.82
51 to 60	757	2.00
61 to 70	356	2.18

Note: There were 135 respondents with “other” positions omitted from the specific position breakdowns but are included in the total results. Responses from 32 pharmacists older than 70 years of age are not included in the age category breakdown.

4.4 Pharmacist Professional Fulfillment and Job Burnout

There have been reports of pharmacist job burnout. To gain some perspective, the NPWS survey included elements of the Professional Fulfillment Index. Response categories were 5-point scales. Low scores on the subscale of professional fulfillment and high scores on the subscales of work exhaustion and interpersonal disengagement indicate a higher level of job burnout. Table 4.4.1 summarizes responses to the Professional Fulfillment Index items. For the professional fulfillment subscale, independent and hospital pharmacists reported the most fulfillment with chain, mass merchandiser, supermarket pharmacists having lower scores (i.e. less fulfillment). This pattern continued with hospital and independent pharmacists having the lowest ratings on physical and emotional work exhaustion compared to the other community-based pharmacy settings. The overall scores for the professional disengagement subscale were the lowest of the three subscales (i.e. less burnout). Considering burnout by gender (Table 4.4.2), female pharmacists reported lower professional fulfillment scores and greater work exhaustion scores compared to male pharmacists. Interpersonal disengagement scores for both genders were similar. Considering position type, respondents working in management had the highest rates of work exhaustion compared to other position types (Table 4.4.3). Owner/partners consistently reported more favorable responses (i.e. less burnout) across all three subscales.

Table 4.4.1 Professional Fulfillment and Job Burnout Ratings Reported by Practicing Pharmacists by Practice Setting

Professional Fulfillment (N (%) reporting very true or completely true)	Independent N=398	Chain N=998	Mass Merchandiser N=380	Supermarket N=319	Hospital N=1,207	Other N=1,131	Total N=4,433
I feel happy at work.	177 (44.5)	102 (10.2)	50 (13.2)	46 (14.4)	427 (35.4)	429 (38.0)	1,231 (27.8)
I feel worthwhile at work.	237 (59.5)	247 (24.8)	105 (27.6)	87 (27.3)	569 (47.2)	552 (48.9)	1,797 (40.6)
My work is satisfying to me.	204 (51.4)	188 (18.9)	81 (21.3)	70 (21.9)	589 (48.8)	527 (46.6)	1,659 (37.5)
I feel in control when dealing with difficult problems at work.	182 (45.7)	240 (24.1)	91 (23.9)	71 (22.3)	377 (31.3)	404 (35.8)	1,365 (30.8)
My work is meaningful to me.	257 (64.6)	397 (39.8)	165 (43.4)	116 (36.4)	733 (60.8)	656 (58.0)	2,324 (52.5)
I'm contributing professionally in the ways I value most (e.g. patient care, teaching, research and leadership).	223 (56.0)	265 (26.6)	97 (25.5)	78 (24.5)	565 (46.9)	568 (50.3)	1,796 (40.5)
Work Exhaustion (N (%) reporting feeling a lot or totally)	Independent	Chain	Mass Merchandiser	Supermarket	Hospital	Other	Total
A sense of dread when I think about work I have to do.	60 (15.1)	453 (45.4)	171 (45.0)	133 (41.7)	213 (17.7)	216 (19.1)	1,246 (28.1)
Physically exhausted at work.	85 (21.4)	560 (56.1)	214 (56.3)	160 (50.2)	259 (21.5)	242 (21.4)	1,520 (34.3)
Lacking in enthusiasm at work.	62 (15.6)	404 (40.5)	153 (40.3)	112 (35.1)	217 (18.0)	215 (19.0)	1,163 (26.2)
Emotionally exhausted at work.	83 (20.9)	501 (50.2)	196 (51.6)	155 (48.6)	276 (22.9)	275 (24.3)	1,486 (33.5)
Interpersonal Disengagement (N (%) reporting feeling a lot or totally)	Independent	Chain	Mass Merchandiser	Supermarket	Hospital	Other	Total
Less empathetic with my patients.	16 (7.0)	134 (19.9)	46 (18.1)	29 (16.3)	52 (5.3)	51 (6.8)	328 (10.7)
Less empathetic with my colleagues	28 (7.0)	152 (15.2)	65 (17.1)	43 (13.5)	143 (11.9)	121 (10.7)	552 (12.5)
Less sensitive to others' feelings/emotions	27 (6.8)	176 (17.6)	60 (15.8)	49 (15.4)	92 (7.6)	92 (8.1)	496 (11.2)
Less interested in talking with my patients	15 (6.6)	149 (22.2)	45 (17.7)	30 (16.9)	64 (6.6)	63 (8.4)	366 (12.0)
Less connected with my patients	14 (6.2)	171 (25.4)	50 (19.7)	32 (18.0)	65 (6.7)	76 (10.1)	408 (13.3)
Less connected with my colleagues	25 (6.3)	155 (15.5)	64 (16.8)	50 (15.7)	158 (13.1)	125 (11.1)	577 (13.0)

Note: Professional Fulfillment scale: Not at all true, Somewhat true, Moderately true, Very true, Completely true

Work Exhaustion & Interpersonal Disengagement scales: Not at all, Very little, Moderately, A lot, Totally

Table 4.4.2 Professional Fulfillment and Job Burnout Ratings Reported by Practicing Pharmacists by Gender

Professional Fulfillment (N (%) reporting very true or completely true)	Male (N=1,544)	Female (N=2,899)	Total (N=4,443)
I feel happy at work.	472 (30.6)	763 (26.3)	1,235 (27.8)
I feel worthwhile at work.	684 (44.3)	1,119 (38.6)	1,803 (40.6)
My work is satisfying to me.	616 (39.9)	1,049 (36.2)	1,665 (37.5)
I feel in control when dealing with difficult problems at work.	554 (35.9)	815 (28.1)	1,369 (30.8)
My work is meaningful to me.	808 (52.3)	1,523 (52.6)	2,331 (52.5)
I'm contributing professionally in the ways I value most (e.g. patient care, teaching, research and leadership).	647 (41.9)	1,155 (39.9)	1,802 (40.6)
Work Exhaustion (N (%) reporting feeling a lot or totally)	Male (N=1,544)	Female (N=2,899)	Total (N=4,443)
A sense of dread when I think about work I have to do.	391 (25.3)	857 (29.6)	1,248 (28.1)
Physically exhausted at work.	450 (29.1)	1,076 (37.1)	1,526 (34.4)
Lacking in enthusiasm at work.	392 (25.4)	7,74 (26.7)	1,166 (26.3)
Emotionally exhausted at work.	448 (29)	1,042 (36.0)	1,490 (33.6)
Interpersonal Disengagement (N (%) reporting feeling a lot or totally)	Male (N=1,544)	Female (N=2,899)	Total (N=4,443)
Less empathetic with my patients.	110 (11.2)	217 (10.4)	327 (10.7)
Less empathetic with my colleagues	174 (11.3)	378 (13.1)	552 (12.4)
Less sensitive to others' feelings/emotions	182 (11.8)	312 (10.8)	494 (11.1)
Less interested in talking with my patients	121 (12.4)	244 (11.7)	365 (11.9)
Less connected with my patients	140 (14.3)	270 (12.9)	410 (13.4)
Less connected with my colleagues	187 (12.1)	390 (13.5)	577 (13.0)

Table 4.4.3 Professional Fulfillment and Job Burnout Ratings Reported by Practicing Pharmacists by Position

Professional Fulfillment (N (%) reporting very true or completely true)	Management (N = 1,007)	Owner/Partner (N = 120)	Staff/clinical (N = 3,175)	Other (N = 151)	Total (N = 4,453)
I feel happy at work.	241 (23.9)	55 (45.8)	871 (27.4)	70 (46.4)	1,237 (27.8)
I feel worthwhile at work.	405 (40.3)	85 (70.8)	1,237 (39.0)	79 (52.3)	1,806 (40.6)
My work is satisfying to me.	342 (34.0)	73 (60.8)	1,164 (36.7)	90 (59.6)	1,669 (37.5)
I feel in control when dealing with difficult problems at work.	339 (33.7)	71 (59.2)	903 (28.5)	60 (39.7)	1,373 (30.9)
My work is meaningful to me.	520 (51.6)	86 (71.7)	1,628 (51.3)	101 (66.9)	2,335 (52.5)
I'm contributing professionally in the ways I value most (e.g. patient care, teaching, research and leadership).	397 (39.4)	77 (64.2)	1,240 (39.1)	92 (60.9)	1,806 (40.6)
Work Exhaustion (N (%) reporting feeling a lot or totally)	Management (N = 1,007)	Owner/Partner (N = 120)	Staff/clinical (N = 3,175)	Other (N = 151)	Total (N = 4,453)
A sense of dread when I think about work I have to do.	385 (38.2)	16 (13.3)	826 (26.0)	24 (15.9)	1,251 (28.1)
Physically exhausted at work.	429 (42.6)	27 (22.5)	1,049 (33.1)	25 (16.6)	1,530 (34.4)
Lacking in enthusiasm at work.	315 (31.3)	14 (11.7)	821 (25.9)	19 (12.6)	1,169 (26.3)
Emotionally exhausted at work.	423 (42.0)	20 (16.7)	1,026 (32.4)	25 (16.6)	1,494 (33.6)
Interpersonal Disengagement (N (%) reporting feeling a lot or totally)	Management (N = 1,007)	Owner/Partner (N = 120)	Staff/clinical (N = 3,175)	Other (N = 151)	Total (N = 4,453)
Less empathetic with my patients.	--	--	328 (10.7)	--	328 (10.7)
Less empathetic with my colleagues	155 (15.4)	8 (6.7)	382 (12.0)	10 (6.6)	555 (12.5)
Less sensitive to others' feelings/emotions	171 (17.0)	11 (9.2)	308 (9.7)	6 (4.0)	496 (11.2)
Less interested in talking with my patients	--	--	366 (11.9)	--	366 (11.9)
Less connected with my patients	--	--	411 (13.4)	--	411 (13.4)
Less connected with my colleagues	153 (15.2)	6 (5.0)	408 (12.9)	12 (8.0)	579 (13.0)

4.5 Discrimination in the Workplace

In recent years, there has been an increased focus on discrimination and harassment in society and the workplace. In 2018, The United States Equal Employment Opportunity Commission (EEOC) filed discrimination charges on behalf of 76,418 individuals and harassment charges on behalf of 26,699 individuals. In 2018, the most commonly reported bases of discrimination were based on gender (32.3%), race (32.2%), disability (32.2%) and age (22.1%).

Table 4.5.1 describes discrimination experienced by actively practicing pharmacists at their workplace. Overall, 1,380 (31.0%) respondents (licensed pharmacists across all practice settings) provided 2,820 total reports of discrimination. The most frequently reported basis of discrimination was age (31.3%), followed by gender (29.2%) and race/ethnicity (16.6%). Of the 2,820 reports of discrimination (all basis/forms), 47.8% of the reports came from community practice settings, 26.8% of the reports came from hospital settings, and 5.7% came from ambulatory care settings. The most commonly reported basis of discrimination in community and hospital settings was based on age (32.0% and 31.4%, respectively). The most commonly reported basis of discrimination in ambulatory care settings was based on gender (34.0%).

Table 4.5.2 depicts the discrimination reporting practices of practicing pharmacists. Of the licensed pharmacists that experienced discrimination in the workplace, only 15.9% of licensed pharmacists reported the discrimination to their employer. Lack of reporting was relatively consistent across community, hospital, ambulatory care and other practice settings (83.7%, 79.4%, 86.9% and 82.8% respectively). The most common reasons for not reporting discrimination among licensed pharmacists were “Didn’t think it would result in any action” (40.6%) and “Concerns about retaliation” (25.7%). Of the licensed pharmacists that did report discrimination, only 24.8% were either “very satisfied” (8.9%) or “somewhat satisfied” (15.9%) with the results of reporting the discrimination to their employer. Meanwhile, 56.1% of pharmacists who reported discrimination were “very unsatisfied” and 19.1% were “somewhat unsatisfied” with the results of reporting the discrimination to their employer. Male supervisors (25.1%) were the most common offenders engaged in discrimination reported by licensed pharmacists across all pharmacy practice settings. The most common offenders engaged in discrimination by practice settings were male customers/patients (27%) in community, male supervisors (31.2%) in hospital, male customers/patients and male colleagues (20.6% and 20.0%) in ambulatory care, and male supervisors (30.4%) in other settings.

Table 4.5.3 portrays the experience of discrimination in the workplace by gender. Female licensed pharmacists reported 2,100 cases of discrimination (74.7%) and male pharmacists reported 712 cases of discrimination (25.3%). Age discrimination was the most frequently reported form of discrimination across the total population of licensed pharmacists. Among male licensed pharmacists, age discrimination was the most common basis of discrimination at 37.2%. Among female licensed pharmacists, gender discrimination was the most common at 34.2%, which was much higher than the frequency of gender discrimination reported by males (14.5%). The frequency of discrimination based on race or ethnicity was slightly higher among male licensed pharmacists (19.1%) compared to female pharmacists (15.7%).

Table 4.5.4 depicts the discrimination reporting practices of practicing pharmacists by gender. The percentage of female versus male licensed pharmacists that did not report discrimination were both above 80%, including 86.9% of males and 83.1% of females. The most common reason for not reporting discrimination among pharmacists who experienced it was that they “didn’t think it would result in any action” (38.9% for males and 41.3% of females). The level of satisfaction after reporting discrimination differed among male versus female pharmacists, with 13.0% of male pharmacists compared to 7.9% of female pharmacists stating they were very satisfied. The most common offenders engaged in discrimination reported by gender were the supervisor of the opposite sex. Male pharmacists reported 23.2% of offenders were female supervisors and female pharmacists reported 26.3% were male supervisors. The frequency of

pharmacists reporting supervisors of their same gender engaging in discrimination differed among male versus female pharmacists.

Table 4.5.1 Practicing Pharmacists Experiencing Discrimination in the Workplace by Setting

Discrimination Experience	Community	Ambulatory Care	Hospital	Other	Total
Basis for the Discrimination	n (% column)				4,623 Respondents
Age	432 (32.0)	51 (31.5)	237 (31.4)	162 (29.2)	882 (31.3)
Gender	376 (27.9)	55 (34)	227 (30.1)	165 (29.8)	823 (29.2)
Race or ethnicity	253 (18.8)	30 (18.5)	107 (14.2)	77 (13.9)	467 (16.6)
Marital status	62 (4.6)	7 (4.3)	46 (6.1)	45 (8.1)	160 (5.7)
Religion	72 (5.3)	5 (3.1)	35 (4.6)	23 (4.2)	135 (4.8)
Disability	39 (2.9)	2 (1.2)	15 (2.0)	16 (2.9)	72 (2.6)
Sexual orientation	26 (1.9)	2 (1.2)	12 (1.6)	7 (1.3)	47 (1.7)
Domestic partner status	7 (0.5)	0 (0.0)	13 (1.7)	6 (1.1)	26 (0.9)
Military status	6 (0.4)	2 (1.2)	6 (0.8)	8 (1.4)	22 (0.8)
Other	76 (5.6)	8 (4.9)	57 (7.5)	45 (8.1)	186 (6.6)
Total (All Forms)	1,349	162	755	554	2,820
No Discrimination Experienced					
Have <u>NOT</u> experienced discrimination	1,399	171	799	704	3,073 (66.5)

Note: Community is a combination of independent, small chain and large chains, mass merchandiser and supermarket settings. Hospital is a combination of government and non-government hospitals. Other includes settings where pharmacists are providing patient care in other environments such as of HMO operated pharmacies, clinic pharmacies, mail service, nuclear, nursing home/long term care, home health, and armed services or where pharmacists may not provide patient care such as industry or academia. More than one basis could be reported by a respondent. The "NOT experienced" respondents were mutually exclusive.

Table 4.5.2 Practicing Pharmacists Reporting of Discrimination in the Workplace to Employer by Practice Setting

Discrimination Reporting	Community	Ambulatory Care	Hospital	Other	Total
Discrimination Reported to Employer	n (% column)				
Yes	120 (16.3)	20 (20.6)	55 (13.1)	51 (17.2)	246 (15.9)
No	618 (83.7)	77 (79.4)	364 (86.9)	245 (82.8)	1,304 (84.1)
Total	738	97	419	296	1,550
Reasons for Not Reporting Discrimination	n (% column)				
Didn't think it would result in any action	410 (42.4)	46 (41.1)	246 (39.2)	149 (38.2)	851 (40.6)
Concern about retaliation	241 (24.9)	27 (24.1)	163 (26.0)	107 (27.4)	538 (25.7)
Concern about lack of privacy	128 (13.2)	13 (11.6)	108 (17.2)	55 (14.1)	304 (14.5)
Prefer not to answer	80 (8.3)	13 (11.6)	51 (8.1)	37 (9.5)	181 (8.6)
Not familiar with the reporting procedures	16 (1.7)	1 (0.9)	17 (2.7)	8 (2.1)	42 (2.0)
Other	92 (9.5)	12 (10.7)	42 (6.7)	34 (8.7)	180 (8.6)
Total	967	112	627	390	2,096
Level of Satisfaction with Results of Discrimination Report	n (% column)				
Very unsatisfied	64 (53.3)	9 (45.0)	32 (58.2)	33 (64.7)	138 (56.1)
Somewhat unsatisfied	27 (22.5)	2 (10.0)	14 (25.5)	4 (7.8)	47 (19.1)
Somewhat satisfied	20 (16.7)	5 (25.0)	4 (7.3)	10 (19.6)	39 (15.9)
Very satisfied	9 (7.5)	4 (20.0)	5 (9.1)	4 (7.8)	22 (8.9)
Total	120	20	55	51	246
Offender's Characteristics	n (% column)				
Male supervisor	316 (23.2)	31 (18.2)	191 (26.6)	157 (30.4)	695 (25.1)
Male customer/patient	368 (27.0)	35 (20.6)	49 (6.8)	49 (9.5)	501 (18.1)
Female supervisor	201 (14.7)	28 (16.5)	139 (19.4)	117 (22.7)	485 (17.5)
Male colleague	121 (8.9)	34 (20.0)	172 (24.0)	89 (17.2)	416 (15.0)
Female colleague	128 (9.4)	26 (15.3)	135 (18.8)	74 (14.3)	363 (13.1)
Female customer/patient	229 (16.8)	16 (9.4)	32 (4.5)	30 (5.8)	307 (11.1)
Total	1,363	170	718	516	2,767

Note: Community is a combination of independent, small chain and large chains, mass merchandiser and supermarket settings. Hospital is a combination of government and non-government hospitals. Other includes settings where pharmacists are providing patient care in other environments such as of HMO operated pharmacies, clinic pharmacies, mail service, nuclear, nursing home/long term care, home health, and armed services or where pharmacists may not provide patient care such as industry or academia. More than one basis could be reported by a respondent.

Table 4.5.3 Practicing Pharmacists Experience with Discrimination in the Workplace by Gender

Discrimination Experience	n (% column)		
Basis for the Discrimination	Male	Female	Total
Age	265 (37.2)	615 (29.3)	880 (31.3)
Race or ethnicity	136 (19.1)	329 (15.7)	465 (16.5)
Religion	60 (8.4)	74 (3.5)	134 (4.8)
Disability	19 (2.7)	53 (2.5)	72 (2.6)
Gender	103 (14.5)	718 (34.2)	821 (29.2)
Sexual orientation	26 (3.7)	20 (1.0)	46 (1.6)
Marital status	33 (4.6)	127 (6.0)	160 (5.7)
Military status	7 (1.0)	15 (0.7)	22 (0.8)
Domestic partner status	9 (1.3)	17 (0.8)	26 (0.9)
Other	54 (7.6)	132 (6.3)	186 (6.6)
Total (All Forms)	712	2,100	2,812
No Discrimination Experienced	n (% row)		
Have not experienced discrimination	1,197 (39)	1,872 (61)	3,069

Note: More than one basis could be reported by a respondent.

Table 4.5.4 Practicing Pharmacists Reporting of Discrimination in the Workplace to Employer by Gender

Discrimination Reporting	Male	Female	All
Discrimination Reported to Employer	n (% column)		
Yes	54 (13.1)	191 (16.9)	245 (15.9)
No	358 (86.9)	942 (83.1)	1,300 (84.1)
Total	412	1,133	1,545
Reasons for Not Reporting Discrimination	n (% Column)		
Didn't think it would result in any action	221 (38.9)	629 (41.3)	850 (40.6)
Concern about retaliation	150 (26.4)	387 (25.4)	537 (25.7)
Concern about lack of privacy	81 (14.3)	223 (14.6)	304 (14.5)
Prefer not to answer	58 (10.2)	122 (8.0)	180 (8.6)
Not familiar with the reporting procedures	9 (1.6)	33 (2.2)	42 (2.0)
Other	49 (8.6)	130 (8.5)	179 (8.6)
Total	568	1,524	2,092
Level of Satisfaction with Results of Discrimination Report	n (% column)		
Very unsatisfied	27 (50.0)	110 (57.9)	137 (56.1)
Somewhat unsatisfied	15 (27.8)	31 (16.3)	46 (18.9)
Somewhat satisfied	5 (9.3)	34 (17.9)	39 (16.0)
Very satisfied	7 (13.0)	15 (7.9)	22 (9.0)
Total	54	190	244
Offender's Characteristics	n (% column)		
Male supervisor	150 (21.6)	543 (26.3)	693 (25.1)
Male customer/patient	98 (14.1)	402 (19.5)	500 (18.1)
Female supervisor	161 (23.2)	323 (15.6)	484 (17.5)
Male colleague	74 (10.6)	341 (16.5)	415 (15.0)
Female colleague	118 (17.0)	245 (11.9)	363 (13.2)
Female customer/patient	94 (13.5)	211 (10.2)	305 (11.1)
Total	695	2,065	2,760

Note: More than one reason for not reporting could be reported by a respondent. More than one type of offender could be reported by a respondent.

4.6 Harassment in the Workplace

Tables 4.6.1 through 4.6.4 show pharmacists' experience with harassment in the workplace. A total of 4,634 pharmacists reported 2,311 incidents of harassment. Of these incidents, over 75% occurred in community and hospital practice settings, 46.9% and 29.9% respectively. The most common forms of reported harassment were "Hearing demeaning comments related to race/ethnicity" (15.7%), followed by "Hearing or observing offensive behavior of a sexual nature" (13.7%) and "Hearing demeaning comments related to gender identity" (13.4%) (Table 4.6.1). A greater proportion of hospital, community and ambulatory care pharmacists reported hearing demeaning comments or observing offensive behavior of a sexual nature compared to other practice settings.

Approximately 83% of pharmacists did not report the harassment to their employer (Table 4.6.2). Community pharmacists were slightly more likely to report harassment to their employer (18.3%) than pharmacists in other settings. The most common reasons for not reporting were "Didn't think it would result in any action" (40.3%) or "concerns about retaliation" (25.7%). Pharmacists in other practice settings were more concerned about retaliation (27.4%) compared to pharmacists in community, ambulatory and hospital pharmacy. Also, 43.8% of pharmacists in community settings didn't think it would result in any action. Interestingly, 25.6% of pharmacists in ambulatory care settings "Preferred not to answer" this question, which was about ten percentage points higher than pharmacists in other settings.

Of those pharmacists who did report harassment 45.8% were "very unsatisfied" with the results of the harassment report. The highest proportion of pharmacists which reported levels of "very satisfied" or "somewhat satisfied" were in the hospital setting (53%).

The most common offenders were male customers/patients (25.3%) and male colleagues (23.3%). Approximately 35% of hospital pharmacists reported harassment from male colleagues, while a similar percentage of community pharmacists reported harassment from male customer/patients. Approximately 22% of hospital pharmacists reported harassment from a female colleague and 21% of community pharmacists indicated the offender was a female customer/patient.

Table 4.6.3 shows reported types of harassment by gender. In each case of harassment, more females than male reported a specific type of harassment. Especially noteworthy is that more than twice as many females than males reported "unwanted advances of a sexual nature" (6.5% versus 2.5%) and "unwanted touching of a sexual nature" (2.4% versus 1.0%) as well as hearing demeaning comments related to gender identity (15.7% versus 8.9%).

Male pharmacists were slightly more likely than female pharmacists to report the harassment to their employer (19.6% versus 16.3%) (Table 4.6.4). Females indicated that the main reason for not reporting was "Didn't think it would result in any action" (42.7%) or "concern about retaliation" (20.0%), while 33.2% of males "Didn't think it would result in any action" or "concern at retaliation" (17.9%). More female pharmacists than males were "very unsatisfied" with the results of the harassment report (50.4% versus 34.4%). Female pharmacists reported the most common offenders were male customers/patients (26.4%) followed by male colleagues (24.7%), while male pharmacists reported the most common offenders were male customers/patients (22.6%) followed by female colleagues (21.3%).

These results suggest that pharmacists have experienced various forms of harassment in their workplaces. Many do not report harassment due to feeling that nothing will be done or that they will face some type of retaliation. More must be done to educate employers and employees, while effective policies need to be put into place so pharmacists have confidence harassment will be appropriately addressed.

Table 4.6.1 Practicing Pharmacists Experience with Harassment in the Workplace by Practice Setting

Harassment Experience	Community	Ambulatory Care	Hospital	Other	Total N=4,634
Reported Type of Harassment	n (% Column)				
Hearing or observing offensive behavior of a sexual nature					
Yes	275 (12.8)	36 (13.4)	214 (17.5)	109 (10.9)	634 (13.7)
No	1,866 (87.2)	232 (86.6)	1,007 (82.5)	895 (89.1)	4,000 (86.3)
Unwanted advances of a sexual nature					
Yes	128 (6.0)	15 (5.6)	58 (4.8)	39 (3.9)	240 (5.2)
No	2,013 (94.0)	253 (94.4)	1,163 (95.2)	965 (96.1)	4,394 (94.8)
Unwanted touching of a sexual nature					
Yes	36 (1.7)	4 (1.5)	28 (2.3)	21 (2.1)	89 (1.9)
No	2,105 (98.3)	264 (98.5)	1,193 (97.9)	983 (97.9)	4,545 (98.1)
Hearing demeaning comments related to gender identity					
Yes	284 (13.3)	34 (12.7)	184 (15.1)	118 (11.8)	620 (13.4)
No	1,857 (86.7)	234 (87.3)	1,037 (84.9)	886 (88.2)	4,014 (86.6)
Hearing demeaning comments related to race/ethnicity					
Yes	362 (16.9)	44 (16.4)	207 (17.0)	115 (11.5)	728 (15.7)
No	1,779 (83.1)	224 (83.6)	1,014 (83.0)	889 (88.5)	3,906 (84.3)
Total of Yes Responses	1,085	133	691	402	2,311

Note: Community is a combination of independent, small chain and large chains, mass merchandiser and supermarket settings. Hospital is a combination of government and non-government hospitals. Other is defined as settings where pharmacists are providing patient care in other environments such as of HMO operated pharmacies, clinic pharmacies, mail service, nuclear, nursing home/long term care, home health, and armed services or where pharmacists may not provide patient care such as industry or academia. Respondents could report experiencing more than one type of harassment.

Table 4.6.2 Practicing Pharmacists Reporting of Harassment in the Workplace to Employer by Practice Setting

	Community	Ambulatory Care	Hospital	Other	Total
Harassment Reported to Employer	n (% Column)				N (% Total)
Yes	99 (18.3)	12 (16.2)	55 (15.8)	35 (17.2)	201 (17.2)
No	443 (81.7)	62 (83.8)	293 (84.2)	168 (82.8)	966 (82.8)
Total	542	74	348	203	1,167
Reasons for Not Reporting Harassment	n (% Column)				N (% Total)
Didn't think it would result in any action	270 (43.8)	31 (39.7)	160 (37.6)	95 (36.5)	556 (40.3)
Concern about retaliation	115 (18.6)	11 (24.1)	80 (18.8)	64 (27.4)	538 (25.7)
Concern about lack of privacy	66 (10.7)	9 (11.5)	64 (15.0)	38 (14.1)	304 (14.5)
Not familiar with the reporting procedures	13 (2.1)	0 (0)	7 (1.6)	6 (2.3)	26 (1.9)
Prefer not to answer	96 (15.6)	20 (25.6)	65 (15.3)	34 (13.1)	215 (15.6)
Other	57 (9.2)	7 (9.0)	50 (11.7)	23 (8.8)	137 (9.9)
Total	617	78	426	260	1,381
Level of Satisfaction with Results of Harassment Report	n (% Column)				N (% Total)
Very unsatisfied	50 (50.5)	3 (25.0)	20 (36.4)	19 (54.3)	92 (45.8)
Somewhat unsatisfied	14 (14.1)	6 (50.0)	6 (10.9)	3 (8.6)	29 (14.4)
Somewhat satisfied	15 (15.2)	1 (8.3)	16 (29.1)	8 (22.9)	40 (19.9)
Very satisfied	20 (20.2)	2 (16.7)	13 (23.6)	5 (14.3)	40 (19.9)
Total	99	12	55	35	201
Offender's Characteristics	n (% Column)				N (% Total)
Male customer/patient	368 (35.4)	38 (33.6)	84 (13.9)	48 (13.6)	538 (25.3)
Male colleague	146 (14.0)	21 (17.1)	212 (35.2)	115 (32.6)	494 (23.3)
Female colleague	129 (12.3)	21 (17.1)	130 (21.6)	58 (16.4)	338 (15.9)
Female customer/patient	214 (20.5)	17 (13.8)	45 (7.5)	20 (5.7)	296 (13.9)
Male supervisor	102 (9.8)	8 (6.5)	70 (11.6)	70 (19.8)	250 (11.8)
Female supervisor	53 (5.1)	8 (6.5)	34 (5.6)	32 (9.1)	127 (6.0)
Unknown*	33 (3.2)	10 (8.1)	28 (4.6)	10 (2.8)	81 (3.8)
Total	1,045	123	603	353	2,124

Note: Community is a combination of independent, small chain and large chains, mass merchandiser and supermarket settings. Hospital is a combination of government and non-government hospitals. Other is defined as settings where pharmacists are providing patient care in other environments such as of HMO operated pharmacies, clinic pharmacies, mail service, nuclear, nursing home/long term care, home health, and armed services or where pharmacists may not provide patient care such as industry or academia.*Unknown offenders could be responsible for anonymous or unattributable harassment (i.e., writings, postings or comments).

Table 4.6.3 Practicing Pharmacists Experience with Harassment in the Workplace by Gender

Harassment Experience	Male	Female	All
Reported Type of Harassment	n (% Column)		
Hearing or observing offensive behavior of a sexual nature			
Yes	165 (10.2)	467 (15.5)	632 (13.7)
No	1,450 (89.8)	2,543 (84.5)	3,993 (86.3)
Unwanted advances of a sexual nature			
Yes	41 (2.5)	197 (6.5)	238 (5.1)
No	1,574 (97.5)	2,813 (93.5)	4,287 (94.9)
Unwanted touching of a sexual nature			
Yes	16 (1.0)	72 (2.4)	88 (1.9)
No	1,599 (99.0)	2,938 (97.6)	4,517 (98.1)
Hearing demeaning comments related to gender identity			
Yes	144 (8.9)	474 (15.7)	618 (13.4)
No	1,471 (91.1)	2,536 (84.3)	4,007 (86.6)
Hearing demeaning comments related to race/ethnicity			
Yes	201 (12.4)	523 (17.4)	724 (15.7)
No	1,414 (87.6)	2,487 (82.6)	3,901 (84.3)
Total of Yes Responses	567	1,733	2,300

Note: Respondents could report experiencing more than one type of harassment.

Table 4.6.4 Practicing Pharmacists Reporting of Harassment in the Workplace to Employer by Gender

	Male	Female	All
Harassment Reported to Employer	n (% Column)		
Yes	61 (19.6)	139 (16.3)	200 (17.2)
No	250 (80.4)	712 (83.7)	962 (82.8)
Total	311	851	1,162
Reasons for Not Reporting Harassment	n (% Column)		
Didn't think it would result in any action	115 (33.2)	440 (42.7)	555 (40.3)
Concern about retaliation	62 (17.9)	206 (20)	268 (19.5)
Concern about lack of privacy	43 (12.4)	134 (13)	177 (12.9)
Not familiar with the reporting procedures	9 (2.6)	17 (1.6)	26 (1.9)
Prefer not to answer	71 (20.5)	143 (13.9)	214 (15.5)
Other	46 (13.3)	91 (8.8)	137 (9.9)
Total	346	1,031	1,377
Level of Satisfaction with Results of Harassment Report	n (% Column)		
Very unsatisfied	21 (34.4)	70 (50.4)	91 (45.5)
Somewhat unsatisfied	9 (14.8)	20 (14.4)	29 (14.5)
Somewhat satisfied	16 (26.2)	24 (17.3)	40 (20.0)
Very satisfied	15 (24.6)	25 (18.0)	40 (20.0)
Total	61	139	200
Offender's Characteristics	n (% Column)		
Male customer/patient	133 (22.6)	404 (26.4)	537 (25.4)
Male colleague	114 (19.4)	378 (24.7)	492 (23.2)
Female colleague	125 (21.3)	212 (13.9)	337 (15.9)
Female customer/patient	102 (17.3)	193 (12.6)	295 (13.9)
Male supervisor	45 (7.7)	203 (13.3)	248 (11.7)
Female supervisor	40 (6.8)	87 (5.7)	127 (6.2)
Unknown	29 (4.9)	52 (3.4)	81 (3.8)
Total	588	1,529	2,117

Section 5 Leadership Within Pharmacy

In a 2004 survey of pharmacists in management positions, Sara J. White reported that 80% of hospital pharmacy directors were planning to retire between 2004 and 2014. Furthermore, 41% of hospital pharmacy directors perceived there to be a moderate shortage of qualified pharmacists for management positions and 36% perceived there to be a severe shortage of qualified pharmacists for management positions. White predicted there would be a significant gap in the pharmacy leadership pipeline between 2004-2014. In a follow-up survey in 2011, White and Enright found that 37% of hospital pharmacy employers reported filling management positions was more difficult than three years ago. The top three reasons for difficulty finding qualified pharmacy managers included (1) lack of pharmacists with leadership experience, (2) belief that management positions are tougher or more stressful than in the past and (3) a lack of interest among pharmacist practitioners. White and Enright reported there was still potential for the leadership crisis to continue from 2011 to 2021.

5.1 Finding Qualified Leaders in Pharmacy

Table 5.1.1 shows the availability of pharmacists for management positions perceived by those currently in management or leadership positions. Categories of management include owners/partners, upper management (executives, chief pharmacy officers, directors, assistant directors, deans and associate deans) and middle management (managers and assistant managers). In 2019, 38.0% of owners/partners perceived the availability of qualified pharmacists for management positions to be at a moderate shortage. In 2019, 40.6 percent of those in upper management and 33.0 percent in middle management perceived the availability of qualified pharmacists for management positions to be a moderate shortage.

Table 5.1.2 shows the perceived difficulty of filling management positions as compared to 5 years ago reported by those currently in management positions. In 2019, all categories of management reported similar percentages across all three responses. Overall, about one-third rated it “easier than 5 years ago”, “same as 5 years ago” and “more difficult than 5 years ago”.

Table 5.1.3 shows the availability of pharmacists for management positions perceived by those currently in management positions across various practice settings. Practice settings include community, hospital/health-system, ambulatory care and other practice settings. In 2019, across all settings 33.9% perceived a moderate shortage, while 27.0% reported a balance. The practice settings with the highest percentage perceiving there to be a moderate shortage were in hospital/health-system (46.9%) and ambulatory care (40.9%).

Table 5.1.4 displays the perceived difficulty of filling management positions as compared to 5 years ago reported across practice settings. Those in management positions in community practice settings were evenly split between “easier than 5 years ago” (34.8%) and “more difficult than 5 years ago” (34.7%). In ambulatory care practice settings, 40.9 percent of respondents perceived filling management positions to be “easier than 5 years ago”. The difficulty of filling management positions in hospital and other practice settings was perceived to be the “same as 5 years ago” by 45.8% and 45.4% respectively.

Table 5.1.1 Managements' Perceptions of the Availability of Qualified People for Pharmacy Management Positions

Perception of Availability	Owner/ Partner n=121	Upper Management* n=251	Middle Management** n=781	Total N=1,153
Severe shortage of qualified people for pharmacy management positions	15 (12.4)	43 (17.1)	91 (11.7)	149 (12.9)
Moderate shortage	31 (25.6)	102 (40.6)	258 (33.0)	391 (33.9)
Balanced	37 (30.6)	65 (25.9)	209 (26.8)	311 (27.0)
Moderate excess	28 (23.1)	28 (11.2)	142 (18.2)	198 (17.2)
Severe excess of qualified people for pharmacy management positions	10 (8.3)	13 (5.2)	81 (10.4)	104 (9.0)

*Upper management includes Executive, CPO, Director, Assistant Director and Dean.

**Middle management includes Manager and Assistant Manager.

Table 5.1.2 Managements' Ratings of the Difficulty in Filling a Pharmacy Management Position

Difficulty of Filling Management Positions	Owner/ Partner n=121	Upper Management* n=251	Middle Management** n=778	Total N=1,150
Easier than 5 years ago	43 (35.5)	63 (25.1)	257 (33.0)	363 (31.6)
About the same as 5 years ago	45 (37.2)	109 (43.4)	256 (32.9)	410 (35.7)
More difficult than 5 years ago	33 (27.3)	79 (31.5)	265 (34.1)	377 (32.8)

*Upper management includes Executive, CPO, Director, Assistant Director and Dean.

**Middle management includes Manager and Assistant Manager.

Table 5.1.3 Managements' Perceptions of the Availability of Qualified People for Pharmacy Management Positions by Practice Setting

Perception of Availability	Community n=726	Ambulatory Care n=44	Hospital n=177	Other n=206	Total N=1,153
Severe shortage of qualified people for pharmacy management positions	92 (12.7)	2 (4.5)	29 (16.4)	26 (12.6)	149 (12.9)
Moderate shortage	218 (30.0)	18 (40.9)	83 (46.9)	72 (35.0)	391 (33.9)
Balanced	190 (26.2)	15 (34.1)	46 (26.0)	60 (29.1)	311 (27.0)
Moderate excess	145 (20.0)	8 (18.2)	13 (7.3)	32 (15.5)	198 (17.2)
Severe excess of qualified people for pharmacy management positions	81 (11.2)	1 (2.3)	6 (3.4)	16 (7.8)	104 (9.0)

Table 5.1.4 Managements' Ratings of the Difficulty in Filling a Pharmacy Management Position by Practice Setting

Difficulty of Filling Management Positions	Community n=724	Ambulatory Care n=44	Hospital n=177	Other n=205	Total N=1,150
Easier than 5 years ago	252 (34.8)	18 (40.9)	37 (20.9)	56 (27.3)	363 (31.6)
About the same as 5 years ago	221 (30.5)	15 (34.1)	81 (45.8)	93 (45.4)	410 (35.7)
More difficult than 5 years ago	251 (34.7)	11 (25.0)	59 (33.3)	56 (27.3)	377 (32.8)

5.2 Interest in Pursuing Leadership Roles in Pharmacy

Table 5.2.1 displays staff pharmacists' interest in pursuing management or leadership in the next five years. Approximately 25% of staff pharmacists in 2019 reported they are interested in pursuing a management/leadership role in the future. By gender, 27.5% of male staff pharmacists and 24.6% of female staff pharmacists are interested in pursuing a management/leadership position in the future. Female staff pharmacists were slightly less interested in pursuing management/leadership positions in the next five years compared to their male counterparts.

Table 5.2.2 shows staff pharmacists' characterization of the future management/leadership positions they plan to pursue by gender. In 2019, the most common characteristics reported by both genders across practice setting was the desire to mentor others including 63.2% of male pharmacists and 56.1% of female pharmacists. The desire to pursue leadership in the profession was the second most common characterization for both male (39.8%) and female (35.9%) staff pharmacists. By gender, female staff pharmacists were 5 percentage points less likely to be interested in pursuing leadership in their organizations compared to their male counterparts.

Table 5.2.3 displays the positive factors associated with pursuit of management or leadership positions as reported by male and female staff pharmacists across practice settings. The "ability to make an impact" was the most common positive factor selected by both male and female staff pharmacists regardless of practice setting (68.8% of males and 67.3% of females). "Having more satisfying work" was the second most common positive factor selected by both male and female staff pharmacists, including 57.4% of males and 60.3% of females.

Table 5.2.4 displays the negative factors or "barriers" associated with pursuit of management or leadership positions as reported by male and female staff pharmacists across practice settings. The most common barrier selected by both male and female pharmacists, across all practice settings, was "role conflicting with family or lifestyle" (males 53.2%, females 61.3%). Across all practice settings, the second most common barrier for males was "working longer hours" (45.4%) and for the second most common barrier for females was evenly split between "working longer hours" (53.1%) and "role being too stressful" (53.1%).

Table 5.2.1 Staff Pharmacists' Interest in Pursuing a Future Leadership Role in The Next 5 Years by Gender

Interested in Pursuing a Leadership Role in Next 5 Years				
		Very Unlikely & Unlikely	Neutral	Likely & Very Likely
Gender	N	n (% Responding by Gender)		
Males	982	498 (50.7)	214 (21.8)	270 (27.5)
Females	2,111	1,076 (51.0)	515 (24.4)	520 (24.6)

Table 5.2.2 Drivers of Staff Pharmacist Interest in Future Leadership Role Reported by Gender

Gender (percentage responding moderately true or very true)	I want to pursue leadership in my organization	I want to pursue leadership in the profession of pharmacy	I would like to mentor others	I want to pursue leadership in my community or other area outside pharmacy
Males (N=990)	33.0	39.8	63.2	39.2
Females (N=2,128)	28.1	35.9	56.1	35.6

Table 5.2.3 Positive Factors Associated with Staff Pharmacists Pursuit of Leadership by Gender

Gender (percentage marking each factor)	Make an Impact	Higher Earnings	More Satisfying Work	Schedule Flexibility	Advance Career	None of These
Males (N=990)	68.8	41.8	57.4	41.7	40.5	12.8
Females (N=2,128)	67.3	36.3	60.3	48.8	40.2	11.6

Table 5.2.4 Negative Factors (Barriers) Associated with Staff Pharmacists Pursuit of Leadership by Gender

Staff Pharmacists & Faculty Reporting Barriers to Pursuit of Leadership (percentage marking each factor)	Not being prepared for the role	Taking on more responsibilities	Concern about working longer hours	Role being too stressful	Role conflicting with family or lifestyle	Managing difficult personnel
Males (N=990)	39.8	39.9	45.4	43.0	53.2	33.0
Females (N=2,128)	47.2	44.2	53.1	53.1	61.3	41.4

Section 6 Retired Pharmacists

6.1 Retired Pharmacists Characteristics and Retirement Decision

A total of 534 (9.8%) respondents reported their employment status as retired (Table 6.1.1). As might be expected, the most common age to retire was 66 years old, with 11.4 percent of retired respondents reporting that age at retirement; 62, 64, and 65 were almost equally reported as retirement ages with approximately 9 percent of retired respondents giving that as the age when they retired. Approximately a quarter of retired pharmacists have continued to work in some capacity after they retired and approximately three-fourths of those retired pharmacists engaged in pharmacy-related work. For those working, the most common factors for working were desire (to keep busy, something to do) or financial (supplemental income). A higher proportion of retired women pharmacists volunteer time in a service capacity (nearly 60 percent versus about 35 percent of retired men pharmacists), and about two-thirds of those retired pharmacists that volunteer do so primarily because they feel a need to contribute their talents and efforts.

Overall, similar proportions of men and women pharmacists reported that their decision to retire was completely voluntary (Table 6.1.2). However, for slightly more retired women pharmacists their decision was not voluntary or somewhat voluntary.

In addition to having established financial security and desire for more personal or family time, demands of the job and culture or philosophy at work were more often rated as important in the decision to retire among the respondents (Table 6.1.3). The reasons for retiring where gender differences were most notable included culture or philosophy at work and negative interpersonal relationships at work; more women rated these reasons to retire as very important.

Note: One caveat when interpreting these results is related to the sample frame for the survey. Pharmacists contacted to participate in the survey were among those that were included in the NABP E-profile system. The sample frame may have underrepresented pharmacists that had retired and not maintained their licensure, and thus consequently were excluded from the NABP database.

Table 6.1.1 Retired Pharmacist Respondent Characteristics 2019 (N = 534)

Retirement Age	Percent
< 50	2.1
50 - 54	2.1
55 - 59	10.2
60 - 64	34.2
65 - 69	33.3
70-74	14.2
75 or older	3.9
Average Age	Years
Male	69.8
Female	64.9
Gender	Percent
Male	65.4
Female	34.6
Prior Work Setting	Percent
Community	43.8
Hospital	29.8
Ambulatory Care/Outpatient Clinic	4.1
Other	22.3
Working for Pay in Some Capacity	Percent
Male	26.1
In Pharmacy-related work	78.0
Female	21.1
In Pharmacy-related work	64.1
Volunteer Time in a Service Capacity	Percent
Male	35.7
Female	58.7
Receiving Social Security Benefits	Percent
Male	80.3
Female	56.5

Table 6.1.2 Voluntary Basis of the Decision to Retire by Gender: Percent of Retired Respondents

	Extent the Decision to Retire Was Voluntary			
	Not at All	Somewhat	Mostly	Completely
Male	6.9	12.9	17.2	63.0
Female	10.3	16.2	10.8	62.7
Total (N=534)	8.1	14.0	15.0	62.9

Table 6.1.3 Importance of Reasons that Influenced the Retirement Decision by Gender

Percent of Pharmacists Rating Reason as:			
	Not Important	Somewhat Important	Very Important
Own Health/Medical Condition(s)			
Male	73.9	10.6	15.5
Female	74.6	11.9	13.5
Total	74.1	11.1	14.8
Demands of the Job			
Male	31.6	33.9	34.5
Female	22.8	42.4	34.8
Total	28.6	36.8	34.6
Negative Interpersonal Relationships at Work			
Male	65.8	18.0	16.2
Female	53.8	21.7	24.5
Total	61.6	19.3	19.1
Culture or Philosophical Environment at Work			
Male	51.3	25.6	23.1
Female	38.0	27.2	34.8
Total	46.7	26.2	27.1
Overall Dissatisfaction with Pharmacy			
Male	60.1	25.4	14.5
Female	52.7	26.6	20.7
Total	57.5	25.8	16.6
Need to Care for or Assist Partner/Family Member			
Male	67.3	19.9	12.7
Female	60.1	23.0	16.9
Total	64.8	21.0	14.2
Had Opportunity Elsewhere			
Male	94.2	6.1	1.5
Female	88.5	9.3	2.2
Total	91.1	7.2	1.7
Established Financial Security			
Male	16.6	32.9	51.4
Female	18.7	28.6	52.7
Total	16.7	31.4	51.9

Note: Overall N values were Male Retired Pharmacist = 345 and Female Retired Pharmacists = 185. Some individual items had missing responses (5 or less throughout the individual table items).

6.2 Retired Life

Respondents were asked to assess how their financial situation changed after retirement and how their retirement life has been (Table 6.2.1). For about two-thirds of retired pharmacists, retirement had, at most, a minor impact on their financial situation. However, nearly a quarter of retired pharmacists reported that retiring had a moderate impact on their financial situation and 5.5 percent had serious financial repercussions due to their retirement, with a slightly higher percent of women pharmacists reporting a serious change in financial situation after retiring.

Many retired pharmacist respondents also rated their retirement quite favorably, with about two-thirds viewing retirement as very satisfying and the retirement years better than before they retired. Small percentages of retired pharmacists viewed retirement as not satisfying and retirement years not as good as before retiring.

Table 6.2.1 Retired Pharmacists' Rating of Financial Situation and Well Being by Gender (N=534)

Change in Financial Situation	Percent of Respondents		
	Male	Female	Total
None (retirement income equal or greater than pre-retirement)	18.0	15.8	17.2
Minor (retirement income reduced somewhat, but easily managed)	45.9	42.4	44.7
Moderate (income reduced with some concern and lifestyle adjustments)	22.7	22.3	22.5
Considerable (retirement income reduced substantially)	9.0	12.0	10.0
Serious (retirement income reduced dramatically)	4.4	7.6	5.5
Retirement Has Turned Out to Be:			
Not at All Satisfying	2.9	4.9	3.6
Moderately Satisfying	36.7	25.5	32.8
Very Satisfying	60.4	69.6	63.6
Retirement Years Have Been:			
Not as Good	7.2	8.7	7.8
About the Same	28.7	20.1	25.7
Better	64.1	71.2	66.5

Section 7 Limitations and Conclusions

7.1 Limitations

The findings of this study should be considered in light of its limitations. The results are based on respondents' self-reports, which could be influenced by intent to make socially desirable responses or simple misinterpretations of questions. We tried to limit misreading by piloting the survey prior to the main data collection. Since the NPWS 2019 used a different survey mode (online) compared to previous NPWS surveys (mail), comparisons of these findings with those previous results should be done with caution.

The low response rate raises concerns about non-response bias. Our analyses of survey responses showed some differences in the respondents compared to the random sample pulled by the NABPF from their population of licensed pharmacists. As a group, NPWS 2019 respondents had a high percentage of female pharmacists, were older and had a lower percentage from the Northeast and higher from the Midwest. These differences should be kept in mind when the findings are interpreted.

7.2 Conclusions

Overall these findings have provided continuing data and some new data about the pharmacist workforce. The pharmacist workforce continues to change in 2019. More licensed pharmacists were working outside of pharmacy or were unemployed relative to 2014, reflective of the tightening of the pharmacist labor market. Monitoring trends in pharmacist unemployment and reasons for unemployment will be important to monitor. The proportion of licensed pharmacists that are non-white is increasing while the proportion of licensed pharmacists with PharmD degree is growing rapidly. How much more racially diversified the pharmacist workforce can become is an important topic to ponder.

Among actively practicing pharmacists, the proportion that is female is over 65% and the proportion that is age 40 years or younger is nearly 50%. The impact that female pharmacists and young pharmacists will have on the workplace and how they react to the workplace will be important issues to monitor moving forward. The impact of rising student loan debt at time of graduation also will be important to monitor as debt load continues to increase. Add something here about demand for leadership and staff desire to pursue leadership. Need to develop leaders. Growth in ambulatory care field consistent with BLS report.

The mean percentage of time spent on care activities not associated with dispensing did not change from 2014. Somewhat in contrast, a wide range of care services were reported being delivered by pharmacists in all practice settings. Some pharmacy settings continue to reduce pharmacist time spent in distributional tasks, while using more automation and pharmacy technicians where feasible. It is likely that availability of payment for enhanced services is a key influence on pharmacist delivery of them.

Overall, the quality of pharmacist work-life was positive, though high stress and job burnout were reported in some community settings. A focus on improving pharmacist work-life and preventing burnout and reduced service quality is important. Also, it is clear that responding to discrimination and harassment should receive attention to improve pharmacist employers' ability to positively respond to such incidents to maintain a healthy workplace.

Mass merchandisers and large chain pharmacies were the most likely to dispense naloxone based on a standing order, whereas independent and small chain pharmacies were more likely to report dispensing naloxone based on a patient-prescription prescription order. Given the continued presence of opioid misuse, it appears that more pharmacists could engage to a greater extent in addressing this problem.

We note that many retired pharmacists continue to maintain a presence in pharmacy. About a quarter of retired pharmacists have continued to work in some capacity during their retirement, with about 75 percent of those still working in pharmacy. A higher percentage of retired female pharmacists volunteer time in a service capacity. Many retired pharmacists reported enjoying retirement.