NATIONAL PHARMACIST WORKFORCE SURVEY

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FINAL REPORT OF THE NATIONAL SAMPLE SURVEY OF THE PHARMACIST WORKFORCE TO DETERMINE CONTEMPORARY DEMOGRAPHIC AND PRACTICE CHARACTERISTICS

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TABLE OF CONTENTS

LIST OF TABLES

4.2 Job Stress

4.3 Effect of Workload

4.4 Future Work Plans

EXECUTIVE SUMMARY

INTRODUCTION

This study was undertaken to provide an update on the pharmacist workforce in 2004 and examine changes since 2000 when the last national assessment of the pharmacist workforce was conducted by the same group of researchers.

Several factors in the market for pharmacists changed between 2000 and 2004 that likely have affected decisions that pharmacists make about working, the level and type of work pharmacists do, characteristics of environments in which pharmacists work, and how pharmacists react to their work (i.e. quality of worklife). Between 2000 and 2004, demand for pharmacists increased; dispensed prescription volume in retail settings increased while the number of retail pharmacies remained relatively stable. Countering the increased demand for pharmacists was an increase in the number of pharmacy schools and graduates from pharmacy schools (and, beginning in 2002, all graduates from pharmacy schools earned Pharm.D. degrees). Dispensing technology improved and generally, states allowed increased technician to pharmacist staffing ratios, promoting the use of more technicians in pharmacies. Lastly, the pharmacy profession continued to advocate pharmacists' roles in direct patient care, including the expansion of collaborative practice agreements and pharmacists providing immunizations. Demonstration projects such as Project IMPACT, the Asheville project and replications of the Ashville project, and recent legislation for Medication Therapy Management Services (MTMS) as part of the Medicare Modernization Act (MMA) suggest new sources of demand for pharmacists.

This current investigation was commissioned by the Pharmacy Manpower Project (PMP). The PMP is comprised of Academy of Managed Care Pharmacy (AMCP), American Association of Colleges of Pharmacy (AACP), American College of Apothecaries (ACA), American College of Clinical Pharmacy (ACCP), American Pharmacists Association (APhA), American Society of Consultant Pharmacists (ASCP), American Society of Health-System Pharmacists (ASHP), Bureau of Health Professions (BHPr), National Association of Chain Drug Stores (NACDS), National Council of State Pharmacy Association Executives (NCSPAE), National Pharmaceutical Association (NPhA), Pharmaceutical Research and Manufacturers Association (PhRMA), and Pharmacy Technician Certification Board (PTCB). The American Association of Colleges of Pharmacy serves as secretariat to the PMP.

Design and analysis of the project were conducted by members of the Midwest Pharmacy Workforce Research Consortium consisting of six principal investigators from five universities:

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OBJECTIVES

The primary purpose of this project was to collect reliable information on demographic and work characteristics of the pharmacist workforce in the United States during 2004. The project obtained information from a nationally representative sample of pharmacists. Specific objectives included the following:

1. Describe the pharmacist workforce in the United States in terms of demographic and work characteristics.
2. Examine hours worked annually by pharmacists and factors influencing the decision to work.
3. Describe pharmacists' attitudes toward work and their quality of work life.
4. Describe pharmacists' work histories and reasons for staying at current jobs and reasons for leaving current and past jobs.

METHODS

Questionnaire Design: To meet the objectives of this project, a seven-page core survey questionnaire was developed that included questions covering employment status and situation (working or not, setting, position, years employed and in current position), compensation and hours worked, work environment (hours the prescription department is staffed, time spent in professional activities, number of staff working, workload, and perceptions of workload and workload impact), future work plans (leave or stay with current employment and reasons therefore), and individual demographic background information.

A four-page supplemental survey questionnaire was developed for each of three additional content areas (i.e., pharmacist careers, quality of worklife, and workplace characteristics). For each survey form, most questions were taken or adapted from previous workforce surveys, including many that were conducted by the principal investigators.

Sample selection: A random sample of 6,000 pharmacists was obtained from KM Lists (a national medical marketing data warehouse). From this list, we randomly chose a sample of 5,000 pharmacists and retained a hold-back sampling frame of 1,000 pharmacists. The 5,000 selected pharmacists were randomly assigned to one of five groups of 1,000 pharmacists. One group received only the core survey. Three groups received the core survey and one of the three supplements (career, quality of worklife, or workplace). The remaining group received the core survey and a composite supplement form that included the questions from all three supplements.

Survey Mailings: Survey procedures included five subject contacts; a pre-notification postcard, the main initial survey mailing, a follow-up postcard sent to non-responders, a second mailing of the survey packet, and either a telephone call or a mailed final reminder to pharmacists who did not respond to the second mailing of the survey form. As part of the fifth contact, sampled pharmacists were given the option of completing a six-question, non-respondent survey form instead of completing the workforce survey and any supplements.

Replacement Sampling: A significant number of pre-notification postcards were returned due to bad addresses. To compensate for these bad addresses in the sampling frame, a replacement sample of 435 pharmacists was selected randomly from the 1,000 extra hold-back pharmacist names not selected for the initial sample. Pharmacists in the replacement sample were mailed materials according to the survey mailing procedures. As the project proceeded, additional bad addresses were discovered throughout the contact waves but no additional replacement sampling was conducted.

Data Analysis: Descriptive statistics including frequencies, percentages, and means were computed for variables contained in the core and supplement survey forms. Where applicable, data from the national survey of pharmacists conducted in 2000 are included with the current data to provide insight into trends in variables.

RESULTS

Section One: Response

Overall Response Rate: Of 4,719 surveys assumed to be delivered, a total of 97 sampled subjects were either deceased (n = 15) or reported they were not pharmacists (n = 82) leaving a total of 4,622 subjects who were pharmacists and eligible to complete the survey. Of these eligible pharmacists, 129 refused to participate, 285 completed the non-respondent interview form and 1,564 returned a survey form for a response rate of 33.8%. A total of 1,470 core survey forms were used for analysis after accounting for three respondents who did not complete the core survey form and 91 survey forms where the respondent failed to report employment status (N = 16) or information for a minimum set of demographic variables (gender, age, hours worked, and practice setting) was missing (N = 75).

Assessment of Response: We assessed non-response bias by examining specific pharmacist characteristics between respondents to the first and second mailings of the survey forms and comparing characteristics of pharmacists who responded to the workforce survey to characteristics of pharmacists who decided not to participate but completed the non-respondent survey form. The final method used to examine non-response bias was to compare characteristics of the respondents to national data.

Overall, the assessment of non-response bias suggests that respondents may under-represent younger pharmacists and over-represent older pharmacists. Further, the age group differences appear to be more prevalent for the female respondents. It appears that the second wave of the survey may have reminded younger pharmacists to respond since respondents to the second mailing of the workforce survey were younger than respondents to the first mailing of the workforce survey.

Section Two: Characteristics of Pharmacists

Licensed Pharmacists: Overall, 86.0% of licensed pharmacists responding to the survey in 2004 were actively practicing pharmacy (working full-time or part-time as a pharmacist or in a pharmacy-related field), slightly less than the 88.2% that responded in the 2000 workforce survey. The difference in the proportion of actively practicing pharmacists results from more survey respondents in 2004 being retired or not working, which could reflect increased retirement or migration out of the practicing workforce.

Actively Practicing Pharmacists: Overall, 45.9% of pharmacists actively practicing in 2004 were female, a slight increase from 2000. The proportion of actively practicing pharmacists working in chain settings increased from 23.5% in 2000 to 27.7% in 2004. The proportion of pharmacists working in traditional community pharmacy practice settings (independent, chain, mass merchandiser, and supermarket pharmacies) remained relatively stable between 2000 (55.4%) and 2004 (56.4%). The proportion of pharmacists in hospital settings remained stable but the proportion in other patient care settings decreased between 2000 and 2004. The proportion of pharmacists in management positions that were female increased from 37.0% to 41.2% between 2000 and 2004.

Comparisons of full-time pharmacists across practice settings revealed that in independent, chain, and mass merchandiser pharmacies, the ratio of men to women pharmacists was roughly 2:1 but in other settings there was an equal or nearly equal ratio of men to women. Chain pharmacy was the most common employment setting for men and hospital pharmacy was the most common setting for women.

Overall, 20.5% of actively practicing pharmacists work part time; 26.8% of female pharmacists and 15.4% of male pharmacists. Nearly all male pharmacists work full-time up to age 55; 83.8% of males working part-time were greater than 55 years old. Among female pharmacists, approximately 30% of female pharmacists between the ages of 31 and 60 work part-time. In 2004, the proportion of part-time pharmacists overall working in chains was considerably higher than in 2000 (29.0% versus 16.1%) and fewer part-time pharmacists were in independent settings (25.9% versus 30.9%).

Hours Worked: Compared to 2000, pharmacists working full-time in 2004 worked fewer hours weekly and pharmacists in ownership and management positions had the largest decreases. In 2004, among pharmacists working full-time, males worked 2.1 hours more per week compared to females. However, the difference in hours worked between males and females working full-time remained stable between 2000 and 2004. Female pharmacists working part-time worked more hours per week than males working part-time (20.3 vs. 17.3). Between 2000 and 2004 the number of hours worked weekly by part-time pharmacists remained fairly stable but the difference in hours worked between males and females increased. In 2004, pharmacists were contributing an average of 0.87 FTE to the workforce. This was a decline from 2000, when pharmacists were providing 0.93 FTE on average to the workforce.

Hourly Wage Rate: Males working full-time earned a higher wage ($45.56) compared to females ($43.47). Interestingly, pharmacists working part-time earned a wage ($44.43) similar

to pharmacists working full-time ($44.61). Relative to 2000, wage rates for pharmacists working full-time in 2004 were less variable across practice settings. The nominal wage growth between 2000 and 2004 was 38% (8.4% growth rate per year) for both full-time and part-time pharmacists. Pharmacists working full-time in management positions earned over $4 more per hour than pharmacists working in staff positions.

Work History: Pharmacists in independent and chain settings reported being with their employers longer than pharmacists in other practice settings. Pharmacists reported they worked for 3.9 employers and spent 6.8 years per employer. Overall, pharmacists in 2004 have had longer tenure with their current employer compared to 2000.

Debt Load: Pharmacists reported current student loan debt of $3,132 compared to $11,772 when they graduated from pharmacy school. Student loan debt amount at time of graduation was $10,975 for pharmacists with 11 to 15 years of experience and was $42,600 for pharmacists with 0 to 5 years of experience. Current student loan debt was $28,854 for pharmacists with 0 to 5 years of experience and $6,822 for pharmacists with 6 to 10 years of experience. Over 90% of pharmacists with 11 to 15 years of experience, 69% of pharmacists with 6 to 10 years of experience, and 28% of pharmacists with 0 to 5 years of experience currently had no student loan debt.

Section Three: Pharmacists' Work Environments and Work

Prescription Volume and Hours of Operation: It was most common (33%) for pharmacists to work in settings dispensing between 100 and 200 prescriptions daily. Over 75% of pharmacists working in supermarket pharmacies worked in settings that dispensed 200 or fewer prescriptions daily. Conversely, 61% of pharmacists working in chain settings worked in settings that dispensed over 200 prescriptions daily. The distribution of pharmacists according to the prescription volume at their practice settings generally was similar between 2000 and 2004. Overall, in both 2000 and 2004, a majority of pharmacists worked at settings that are staffed between 41 and 80 hours per week, but slightly more pharmacists in 2004 worked in settings staffed more than 80 hours per week.

Pharmacy Staffing: In 2004, 63% of pharmacists overall reported they worked with one or more pharmacists during a majority of their workday and a higher proportion of pharmacists in hospital settings (87%) worked with other pharmacists. More than half of pharmacists in independent settings (52%), chains (52%) and supermarkets (61%) did not work with another pharmacist. The proportion of pharmacists working with three or more technicians increased from 33% to 46% between 2000 and 2004. The largest changes between 2000 and 2004 in the proportion of pharmacists working with three or more technicians were for pharmacists working in independent, chain and mass merchandiser settings.

Technology Present in Practice Setting: With a few exceptions, equipment related to facilitating the dispensing process was more common than equipment related to patient care activities. The most common types of dispensing-related equipment in community pharmacies were automated patient refill request phone systems, bar coding for prescriptions, and tablet/capsule counters. This equipment was present in at least half of the chain pharmacy respondents' practice sites and

next most common in mass merchandiser and supermarket pharmacies. Hospital pharmacists reported the highest rate of automated dispensing systems being available in their practice sites. The most common patient care-related equipment was a blood pressure cuff, with over half of all respondents practicing in community pharmacy settings reporting having them available. Among the community pharmacy respondents, there was a tendency for more patient care-related equipment in independent and supermarket pharmacy settings.

In terms of information technology present in pharmacies, 76% of respondents had internet access and 65% had drug information software in their practice sites. Pharmaceutical care profile or documentation systems were least often reported available in independent pharmacies, and in about 60% of cases when documentation systems were available they were computerized.

More than 60% of respondent pharmacists reported that equipment and/or technology increased the level of their productivity and the quality of care provided to patients, and about half of respondents reported that equipment and technology increased their level of job satisfaction. More pharmacists reported that equipment and technology increased versus decreased demands on their time in the pharmacy, whereas the converse was true for time spent in the dispensing process; more pharmacists reported a decrease versus an increase in time spent in dispensing due to equipment and technology.

Current and Potential Service Provision at Practice Settings: Respondents were asked to check from a list of professional and specialty services which ones were offered at their practice sites. The list included services related to prescriptions or specialty products such as general and specialty compounding, mailed refill reminders, home infusion, veterinary pharmacy, and durable medical equipment, plus patient care services such as immunization, nutritional support, health and wellness screening, pharmacokinetic dosing, and disease state management.

Across all setting types, no services (other than general/simple compounding and drug information services) were offered in more than one-fourth of pharmacists' sites. Among community settings, independent and supermarket pharmacies tended to have a higher profile of services offered (e.g., durable medical equipment was available in nearly two-thirds of independent pharmacies), however some services were more available in chain or mass merchandiser pharmacies. Pharmacokinetic dosing, nutritional support, and a pharmacy newsletter were more prevalent in hospital pharmacy settings, as well as smoking cessation and medication therapy management services. Disease state management programs were most frequently reported offered by respondent pharmacists from hospital settings, followed by independent and supermarket pharmacies. The most common therapeutic areas for which disease state management programs were offered included diabetes, anticoagulation, hypertension, and asthma/COPD.

Overall, 13% of pharmacists reported receiving payment for non-dispensing patient services in their pharmacies. The lowest rates of occurrence were in mass merchandiser and chain pharmacies. For pharmacies where payment was reported, the most common source of payment was patients themselves (51%), followed by government programs (33%), and health insurance plans (31%).

Pharmacists were asked to rate (excellent, very good, good, fair, poor) their practice sites on the adequacy of resources to develop and provide pharmacist and/or pharmacy services. Only one item, skills to provide services, was rated as at least good on average (3.3, where good was the midpoint at 3.0). Staffing levels, resources to obtain payment, marketing skills, financial resources, and expertise were rated fair to good (2.4 to 2.9, in order). With few exceptions, across settings, average ratings for the adequacy of resources and characteristics were highest for pharmacists in independent settings. Mass merchandiser and hospital settings tended to have the lowest average ratings on adequacy of resources for pharmacist services.

Prescriptions Personally Dispensed: Just over half of responding pharmacists reported personally dispensing 120 or more prescriptions daily. Relative to other practice settings, a greater proportion of pharmacists working in chains (45%) personally dispensed greater than 160 prescriptions daily. Overall, between 2000 and 2004 the proportion of pharmacists personally dispensing more than 160 prescriptions daily increased from 23% to 36% and these proportions increased in each practice setting except mass merchandiser pharmacies.

Selected Patient Care Activities: Approximately equal proportions of pharmacists served 10 or fewer patients daily (27%) and served greater than 50 patients per day (25%). The typical hospital pharmacist was more likely to serve fewer patients daily, evaluate one or more drug levels daily and review one or more patient charts daily than a typical pharmacist in the other practice settings. In terms of position, a higher proportion of staff pharmacists evaluated at least one drug level (43%) and reviewed at least one patient chart (43%) compared to pharmacists in management positions (33% and 35%, respectively).

Interactions with Others: Pharmacists were asked to report the average numbers of different individuals that they personally have contact with or provide care for daily, categorized into different modes of communication (face-to-face, via telephone, via facsimile, and via e-mail). Community pharmacists, as compared to hospital pharmacists, had higher numbers of daily interactions with patients or caregivers via face-to-face and telephone contact, but fewer, even rare, face-to-face interactions with nurses. Except for facsimile interactions with prescribers, telephone interactions were the most frequent basis of interactions for non-patient (prescriber, nurse, pharmacist, and third-party payer) contacts by pharmacists. The use of e-mail was very low for all types of interactions reported by pharmacist respondents.

Allocation of Time: In regards to time spent in work activities, there was similarity across the various settings in terms of where pharmacists actually spent their time; pharmacists spent the most time dispensing medication (49% of their time) followed by patient consultation (19% of their time), business management (16% of their time), and drug use management (13% of their time). There has been little change between 2000 and 2004 in terms of where pharmacists actually spent their time during the day. Generally, pharmacists actually spent less than their desired amount of time in consultation and drug use management and actually spent more time than they desire in dispensing and business management.

Ratings of Workload: Over one-half of pharmacists (54%) rated the workload at their settings as high or excessively high and 58% reported that workload increased or increased greatly compared to one year ago. The ratings differed across practice settings as 35% of pharmacists

working in supermarkets reported workload at their setting was high or excessively high compared to 59% of chain pharmacists and 61% of hospital pharmacists.

Section Four: Pharmacists' Reaction to Their Work

Work Attitudes: In 2004, over two-thirds of pharmacists overall reported scores above the midpoint for role overload, with chain and hospital settings having the highest percents of pharmacists with higher ratings. However, in general, attitudes in 2004 were better than in 2000. Job satisfaction, organizational commitment and career commitment were particularly high for pharmacists in independent settings and lower in the mass merchandiser, chain and supermarket settings. Work attitudes across gender were similar. Pharmacists in management positions had higher levels of job satisfaction, career commitment, and especially organizational commitment than staff in 2004, and these ratings were improved over those in 2000.

Job Stress: Five items were rated as highly stressful by a third or more of all pharmacists. Inadequate staffing (technicians especially, but also pharmacists) and "being interrupted by phone calls or people" were the most highly rated stress generators and more chain, mass merchandiser and hospital pharmacists rated these items as highly stressful. "Dealing with difficult patients" and "having so much work to do that everything cannot be done well," were the other items rated highly stressful by a third of all pharmacists; pharmacists in chain, mass merchandiser, and supermarket pharmacy settings more often rated these items as highly stressful. More women than men rated individual stressor items as highly stressful with the exception of paperwork. The patterns of responses in results on the stress measures generally were similar in 2000 and 2004.

Effect of Workload: Pharmacists were asked to report how the current workload in their pharmacy affected various outcomes that we categorized as job-related, pharmacist health-related and patient care-related. One job-related item, "opportunity to take adequate breaks" had the largest proportion (48%) of pharmacists rating the effect of workload as negative. However, as a group, patient care-related outcomes had the most pharmacists rating the effect of workload as negative. Fewer pharmacists in independent and supermarket pharmacy settings rated the effect of workload as negative; this is consistent with lower prescription volumes in those pharmacies.

Future Work Plans: Overall, 32% of pharmacists in 2004 reported that it would be difficult or very difficult to find an acceptable job within the year compared to 29% in 2000. Fewer pharmacists in chain, mass merchandiser and supermarket pharmacies reported it would be difficult or very difficult to find an acceptable job within the next year (19 to 28% in these settings versus 35 to 48% in all other settings). Roughly equal proportions of males (30%) and females (33%) reported it would be difficult or very difficult to find an acceptable job within the year. For both males and females, a better work schedule was the most difficult characteristic to find.

In terms of intention to leave their current job, overall, 23% of pharmacists reported they were likely to leave in the next year. Across practice settings, 15% of pharmacists in hospitals reported they were likely to leave compared to 38% of pharmacists in supermarkets. Between

2000 and 2004, the rate of turnover intention decreased in all practice settings except supermarkets; the overall rate of turnover intention decreased from 31% to 23%. The turnover intention rates were similar for males and females.

Pharmacists who reported being likely to leave were asked to report the importance of potential reasons for leaving. The reasons for leaving rated "very important" most commonly were work schedule (55%) followed by salary (43%) and benefits (42%). The reason least often reported as "very important" was amount of patient contact. In terms of reasons for staying, the three most common very important reasons were work schedule (52%), benefits (41%) and spouse/family relocation (37%).

CONCLUSIONS

This report provides a descriptive overview of pharmacist characteristics, characteristics of pharmacists' work environments and pharmacists' reactions to their work for a sample of pharmacists in the United States in 2004. A key feature of this report is the comparison of data in 2004 with similar data collected in 2000. The responses to the 2004 survey suggest that pharmacists generally are working less, being paid more, and have a better perspective toward their work and careers than in 2000. Although pharmacists work fewer hours per week, they are personally responsible for more prescriptions each day and they have more non-pharmacist personnel working with them. Their activities and equipment in their practice settings continue to have an emphasis on dispensing prescriptions. More favorable opinions among pharmacists were reflected in their work attitudes, decreased turnover intention, and higher reports of difficulty in finding a job with better characteristics than their present position.

INTRODUCTION

This study was undertaken to provide an update on the pharmacist workforce in 2004 and examine changes since 2000 when the last national assessment of the pharmacist workforce was conducted by the same group of researchers.

Several factors in the market for pharmacists changed between 2000 and 2004 that likely have affected decisions that pharmacists make about working, the level and type of work pharmacists do, characteristics of environments in which pharmacists work, and how pharmacists react to their work (i.e., quality of worklife). Between 2000 and 2004 dispensed prescription volume in retail community pharmacy settings (independent, traditional chain, supermarket, mass merchandiser, mail order) increased while the number of retail pharmacies remained relatively stable. In 2000, 2.88 billion prescriptions were dispensed in community retail practice settings and this number increased to 3.2 billion in 2003. In terms of community retail pharmacies, in 2000 there were 55,011 pharmacies and in 2003 the number grew minimally to 55,382 (NACDS, 2005). The resulting higher prescription volume per community retail pharmacy signals an increased demand for pharmacists.

Countering the increased demand for pharmacists was an increase in the number of pharmacy schools and graduates from pharmacy schools (and, beginning in 2002, all graduates from pharmacy schools earned Pharm.D. degrees). In 2000, a total of 7,260 pharmacy students earned their first professional pharmacy degree and this number increased to 7,488 in 2003 (Patton, McSherry and Meyer, 2004). With the expansion of pharmacy schools, it is projected that the number of pharmacy school graduates will increase in the coming years (Patton, McSherry, Meyer, 2004). Also countering the increased demand for pharmacists is the use of technology and technical personnel. Dispensing technology improved and generally, states allowed increased technician to pharmacist staffing ratios, promoting the use of more technicians in pharmacies (NABP, 2000, NABP, 2004).

Pharmacy practice continues to evolve toward a more patient-centered care model and the pharmacy profession has continued to advocate pharmacists' roles in direct patient care, including the expansion of collaborative practice agreements and pharmacists providing immunizations. Demonstration projects such as Project IMPACT, the Asheville project and replications of the Ashville project, and recent legislation for Medication Therapy Management Services (MTMS) as part of the Medicare Modernization Act (MMA) suggest new sources of demand for pharmacists.

Assessing the status of the pharmacist workforce in 2004 is a key goal of this study. Another goal is gaining an understanding of how pharmacists have reacted to changes in the market since 2000 and identifying important trends for the future of the pharmacist workforce. It is also important to begin to understand factors that may be facilitating or preventing pharmacists from providing essential patient services related to their drug therapy; knowledge of pharmacists work, work environments and perceptions about work can provide insight.

INVESTIGATORS

This current investigation was commissioned by the Pharmacy Manpower Project (PMP). The PMP is comprised of Academy of Managed Care Pharmacy (AMCP), American Association of Colleges of Pharmacy (AACP), American College of Apothecaries (ACA), American College of Clinical Pharmacy (ACCP), American Pharmacists Association (APhA), American Society of Consultant Pharmacists (ASCP), American Society of Health-System Pharmacists (ASHP), Bureau of Health Professions (BHPr), National Association of Chain Drug Stores (NACDS), National Council of State Pharmacy Association Executives (NCSPAE), National Pharmaceutical Association (NPhA), Pharmaceutical Research and Manufacturers Association (PhRMA), and Pharmacy Technician Certification Board (PTCB). The American Association of Colleges of Pharmacy serves as secretariat to the PMP.

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OBJECTIVES

The primary purpose of this project was to collect reliable information on demographic and work characteristics of the pharmacist workforce in the United States during 2004. The project obtained information from a nationally representative sample of pharmacists. Specific objectives included the following:

1. Describe the pharmacist workforce in the United States in terms of demographic and work characteristics.
2. Examine hours worked annually by pharmacists and factors influencing the decision to work.
3. Describe pharmacists' attitudes toward work and their quality of work life.
4. Describe pharmacists' work histories and reasons for staying at current jobs and reasons for leaving current and past jobs.

METHODS

Questionnaire Design

The primary objective of the study was to gather information from pharmacists in several core areas that would allow a description of the pharmacist workforce in the U.S. A seven-page core survey questionnaire was developed that included questions covering employment status and situation (working or not, setting, position, years employed and in current position), compensation and hours worked, work environment (hours the prescription department is staffed, time spent in professional activities, number of staff working, workload, and perceptions of workload and workload impact), future work plans (leave or stay with current employment and reasons therefore), and individual demographic background information.

Additional information was desired in three content areas, pharmacist careers, their quality of worklife, and specifics to describe their workplace. A four-page supplemental survey questionnaire was developed for each of the three additional content areas. The career supplement form captured information on past work experience, current job, and future work plans. The quality of worklife supplement included questions covering areas such as the work environment, stress in the work environment, control and how work is approached, job satisfaction, and organizational commitment. The workplace supplement included questions about equipment and information technology, interactions with others, and services offered at pharmacists' practice sites. (The core survey form and a supplement survey form that combined all supplemental content areas are included at the end of this report.)

For each survey form, most questions were taken or adapted from previous workforce surveys, including many that were conducted by the principal investigators (Pedersen, Doucette, Gaither, Mott, Schommer, 2000). Individual researchers suggested the basic structure and questions for sections of specific surveys and the entire research team provided several iterations for review and refinement that yielded the final core and supplemental surveys. Using a core questionnaire and supplements was a strategic decision intended to streamline the core content areas and maximize those responses, plus reduce overall respondent burden while capturing additional information; respondents could choose to complete and return only the core survey form if they desired.

Sample selection:

KM Lists, Inc. was contacted in March 2004 to provide a mailing list of licensed pharmacists for this survey. KM Lists is a national medical marketing data warehouse and they were the source of the sampling frame for a similar study of the pharmacist workforce conducted in May, 2000. In March 2004, KM had a list of 264,000 licensed pharmacists in the United States. The list at KM was a listing of unduplicated individuals and contained the name and an address for all pharmacists and a telephone number for approximately 40 percent of pharmacists. KM cleans and updates their list whenever a

state board of pharmacy gives them updated data. They have no states that refuse to give them the information.

We sought to survey a sample of all licensed pharmacists to get an assessment of the state of the workforce. Therefore, when sampling, we did not attempt to identify only those pharmacists most likely to be practicing. We wanted to include the population of licensed pharmacists in our sample, including those working but in non-traditional roles, those working outside of pharmacy, and pharmacists who were retired or not in the pharmacy workforce for other reasons.

A random sample of 6,000 pharmacists was obtained from KM Lists. From this list, we randomly chose a sample of 5,000 pharmacists and retained a hold-back sample frame of 1,000 pharmacists. The 5,000 selected pharmacists were randomly assigned to one of five groups of 1,000 pharmacists. One group received only the core survey. Three groups received the core survey and one of the three supplements (career, workplace, or quality of worklife). The remaining group received the core survey and a composite supplement form that combined questions from all three supplements. The survey forms (core and appropriate supplemental form) for each group of 1,000 sampled pharmacists were color-coded by copying onto colored paper.

Survey Mailings

Survey procedures included five subject contacts. The first contact was a pre-notification postcard sent to all sampled pharmacists (on 5/19/04). The second contact was the main initial survey mailing one week later. Each pharmacist was sent a survey packet containing a letter describing the study, the core survey and any supplements, and a postage paid business-reply return envelope. An identification number was written in pencil on the return envelopes to avoid re-contacting pharmacists who had responded to the survey. The third contact was a follow-up postcard sent to non-responders (on 6/09/04). The fourth contact was a second mailing of the survey packet (on 7/06/04). As a fifth contact, pharmacists not responding to the second mailing of the survey packet received either a telephone call or a mailed final reminder.

Replacement Sampling

A significant number of pre-notification postcards were returned by the postal service with notation that the postcard could not be forwarded due to an expired forwarding order or bad address. To compensate for these bad addresses in the sampling frame, a replacement sample of 435 pharmacists was selected randomly from the 1,000 extra hold back pharmacist names not selected for the initial sample. Pharmacists in the replacement sample were mailed materials according to the survey mailing procedures. The pre-notification postcard was sent 6/10/04, the first mailing of the survey was sent 6/21/04. The follow-up postcard to non-responders was sent 7/08/04 and the second mailing of the

survey was sent 8/04/04. As the project proceeded, additional bad addresses were discovered throughout the contact waves. However, after the initial replacement effort, additional surveys were not distributed.

Phone and Mailed Fifth Contact

The research protocol included a phoned fifth contact with subjects to stimulate responses. Since phone contact information was not available for all pharmacists in the sampling frame and efforts to locate phone contact information were not totally successful, a mailed postcard served as an alternate fifth contact.

Phone Fifth Contact: Researchers used the phone number contained in the sampling frame or a home listing obtained via an Internet search (*yahoo.com people search*). Subjects were called in the evening hours on weekdays and between 9am and 9pm on weekends. Calls started on August 18, 2004 and continued through November 20, 2004.

Callers either spoke directly with the sampled pharmacist or left a message with another person or on an answering machine. Callers worked from a script to ensure consistent content. Callers who talked directly with a pharmacist identified themselves and asked whether the pharmacist remembered receiving forms in the mail, whether they would be willing to participate, whether they needed survey forms, and if they had any questions. If pharmacists did not wish to participate, callers asked them to answer six questions for a non-respondent interview. The interview contained questions about their work and personal characteristics and why they did not want to participate. Answers were documented on data collection forms and later entered into a non-respondent database.

If a message was left, callers identified themselves, informed the pharmacist or person receiving the message about the project, reminded them to participate, prompted them to request another survey form if necessary, and provided a phone number and e-mail address to contact the researchers.

Mailed Fifth Contact: A mailed reminder was used for sampled subjects without phone numbers or where the phone call did not result in a subject contact (speaking directly with or leaving a message). The mailed reminder was designed as a one-page survey form, with appeal text on the top half of the page and survey questions to gather non-respondent information on the bottom half of the page. This non-respondent survey form was printed on legal size (8 ½ X 14 inch) cover stock and perforated to allow subjects to complete and detach the bottom portion, fold it in half, tape it shut, and return it as a postage-paid, business reply card. Reminder non-respondent surveys were mailed between September 24 and November 22, 2004.

Subjects receiving the reminder non-respondent survey were given four options: complete the original survey and return it, request new original survey forms, complete and return the non-respondent survey card, or answer only the first question (about work status) on the non-respondent survey and return the card.

Data Analysis

Descriptive statistics including frequencies, percentages, and means were computed for variables contained in the core and supplement survey forms. Where applicable, data from a national survey of pharmacists conducted in 2000 are included with the current data to provide insight into trends in variables. In general, variables collected in 2000 and 2004 were collected using the same items in survey forms. (Data describing the pharmacist workforce in 2000 were collected via mailed survey from a sample of 5,000 licensed pharmacists in the 48 contiguous United States. Of the 2,250 total responses, 2092 were complete. A description of the procedures used for data collection is described elsewhere (Pedersen, Doucette, Gaither, Mott, Schommer, 2000.)).

RESULTS

Section 1: Response

1.1 Response Rate

A total of 4,719 pharmacists were assumed to have received a survey form (Table 1.1.1). Of these, 97 sampled surveys were returned reporting the subjects were either deceased (N = 15) or not pharmacists (N = 82) leaving a total of 4,622 sampled subjects who presumably were pharmacists and eligible to complete the survey. Of the 4,622 eligible pharmacists, 129 refused to participate, 285 completed the non-respondent interview form and 1,564 returned a survey form. Overall, we received some type of response from 44.0% of subjects who were assumed to have received a survey form (2,075/4,719). The usable response rate among pharmacists eligible to complete the survey form was 33.8% (1,564/4,622). The response rates varied somewhat by content of the survey packet.

The usable response rate for pharmacists receiving only the core survey was higher than the response rates for any combined core and supplement mailings. The overall response rate for the core survey was composed of the core surveys in all of the five groups of surveys mailed. Among the total 1,564 survey responses received, 3 did not complete the core survey form. In addition, of the 1,561 completed core survey forms, 16 were deleted because the respondent failed to report their current employment status and 75 core surveys were removed from analysis because the respondent did not report all information for a minimum set of demographic variables (gender, age, hours worked, and practice setting). Thus, of the 1,561 completed core survey responses, a total of 91 (5.8%) were excluded leaving a total of 1,470 for analysis.

Of the 1,000 pharmacists sampled to receive the core survey and the workplace supplement, a total of 333 surveys were returned and all of the respondents completed both the core survey and the workplace supplement. A total of 301 respondents returned the core survey and/or the quality of worklife supplement, but two respondents completed the supplement but not the core and two respondents completed the core but not the supplement. A total of 295 respondents returned the core survey and/or the career supplement with one respondent completing the core survey but not the career supplement. For the sample group that received the core survey and the composite, combined supplement, a total of 278 surveys were returned; one respondent completed the supplement but not the core survey and two respondents completed the core but not the supplement.

1.2 Assessment of Response

A sampled pharmacist's decision to respond may be based on a non-random event (e.g., being too busy to complete the survey) which would bias the representativeness of the results. Thus, assessing non-response bias (the bias in the data caused by a lack of response to surveys) is important and there are several approaches that can be used in attempts to assess the bias. For example, characteristics of respondents can be compared

with known population parameters, characteristics of non-responders can be extrapolated from those of respondents who are judged more likely to reflect non-responders by when or how they reply, and responders can be compared with non-responders if characteristics for both are available.

The first method used to examine non-response bias was examining specific pharmacist characteristics between respondents to the first and second mailings of the survey forms. The characteristics examined were employment status, employment setting, age, gender, and year of first licensure as a pharmacist. Overall, 1,016 respondents (68.4%) responded after the first mailing and 344 respondents (23.2%) responded after the second mailing was sent. The remaining 125 responses were received after the fifth contact was made with non-responders. Table 1.2.1 contains a summary of comparisons between respondents to the first mailing of the survey and the second mailing of the survey. There were significant differences between respondents to the first and second mailing of the survey in terms of age, employment status, and year of first pharmacist licensure. Respondents to the first mailing were more likely to be older, working as a pharmacist in a pharmacy, and retired or semi-retired, and more of them acquired their first pharmacist licensure prior to 1980.

The second method used to examine non-response bias was comparing characteristics of pharmacists who responded to the workforce survey with characteristics of pharmacists who decided not to participate but completed the non-respondent survey form. Again, the characteristics examined were employment status, employment setting, age, gender, and year of first pharmacist licensure. A total of 285 pharmacists agreed to complete the non-respondent survey form or provided at least some non-respondent information in the phoned fifth contacts. Table 1.2.2 contains the results of the comparisons between respondents to the workforce survey and those to the non-respondent survey form. Respondents to the workforce survey were significantly different from respondents to the non-response follow-up only in terms of their employment setting. Larger proportions of non-respondents practiced in independent and hospital pharmacy settings.

The final method used to examine non-response bias was to compare characteristics of the sample of respondents to population parameters. The Current Population Survey's (CPS) Outgoing Rotation Group (ORG) was used as a source for population parameters. The CPS is a monthly survey of 50,000 households nationwide conducted by the Bureau of Labor Statistics. The ORG data contain detailed information about current occupation, earnings, and general demographic information such as gender, marital status and race for approximately 300,000 individuals each year that are rotated out of the study. We extracted data for pharmacists from the ORG for 2004.

Table 1.2.3 contains a summary of the comparisons between survey sample respondents' characteristics and national estimates for all actively practicing pharmacists and Table 1.1.5 contains comparisons between sample and national estimates for male and female pharmacists. Since the population parameters for pharmacists that exist represent pharmacists who are actively practicing pharmacy, we restricted the survey sample respondents to those actively practicing pharmacy as pharmacists and working in

pharmacy or a related career. We classified a respondent to the survey as actively practicing pharmacy based on their response to the employment status question asked at the beginning of the core survey. The comparison between the sample and the national population parameters revealed that more survey respondents were older and the age differences were more pronounced for women. However, as a national estimate source, the ORG data were based on a small number of pharmacists, raising a question about the appropriateness of this source for the comparison.

Overall, the assessment of non-response bias suggests that the sample may under represent younger pharmacists and over represent older pharmacists. Further, the age group differences appear to be more prevalent for the sample of female pharmacists. It is unknown why fewer younger pharmacists responded to the survey. However, it appears that the second wave of the survey may have reminded younger pharmacists to respond since respondents to the second mailing of the workforce survey were younger than respondents to the first mailing of the workforce survey.

Table 1.1.1: Summary of Response to 2004 National Workforce Project

	Core only	Core + com-posite supple-ment	Core + career supple-ment	Core + worklife supple-ment	Core + work-place supple-ment	Total
1. Initially Sampled	1,000	998	1,000	999	1,001	4,998
2. Replacement sample	56	97	92	83	107	435
3. Total sampled	1,056	1,095	1,092	1,082	1,108	5,433
4. Bad Address	144	161	133	125	151	714
5. Total receiving survey	917	934	959	957	957	4,719
6. Bad Address Rate (4/3)	13.6%	14.7%	12.2%	11.6%	13.6%	13.1%
Responses						
7. Subject deceased	2	4	4	3	2	15
8. Subject not a pharmacist	19	16	14	11	22	82
9. Total eligible pharmacists (5-(7+8))	891	914	941	943	933	4,622
10. Subject refused to participate	11	30	37	31	20	129
11. Subject completed non-respondent form	51	50	54	77	35	285*
12. Subject completed questionnaire	357	278	295	301	333	1,564
13. Total pharmacists responding (10+11+12)	419	357	386	409	388	1,978
Response Rates						
14. Contact rate (13/9)	47.0%	39.1%	41.0%	43.2%	41.6%	42.8%
15. Useable response rate (12/9)	40.1%	30.3%	31.3%	31.7%	35.7%	33.8%

Note: * Includes non-respondent information collected in telephone fifth contacts. A total of 18 respondents who provided information for the non-respondent form did not include their identification number and thus could not be categorized as to which survey group they belonged.

Table 1.2.1: Comparison of Respondents to First Mailing of Survey and Respondents to Second Mailing of Survey

	First Mailing (%)*	Second mailing (%)*	Chi-square test †
Age			
≤ 30	6.4	10.4	
31 to 40	20.2	26.1	
41 to 50	24.5	24.3	
51 to 60	26.3	20.5	
61 to 70	13.8	13.1	
> 70	8.8	5.6	
	n = 998	n = 337	**p = 0.007**
Gender			
Male	57.9	54.4	
Female	42.1	45.6	
	n = 1,012	n = 344	p = 0.251
Employment status			
Work as a pharmacist	71.1	68.8	
Work in a pharmacy related field	7.3	10.8	
Work in a non-pharmacy field	3.6	3.8	
Semi-retired	7.8	5.2	
Retired	8.3	7.3	
Not employed	1.9	4.1	
	n = 1,016	n = 344	p = 0.038
Employment setting			
Independent	16.8	11.8	
Chain	28.8	31.0	
Mass merchandiser	4.7	4.8	
Supermarket	9.5	11.8	
Hospital	25.3	28.4	
Other patient practice	12.4	9.6	
Industry	2.5	2.6	
	n = 825	n = 271	p = 0.348
Year of licensure			
up to 1960	12.1	11.2	
1961 to 1970	15.2	11.2	
1971 to 1980	27.8	22.8	
1981 to 1990	22.9	23.1	
1991 to 2000	20.1	27.2	
2001 to 2004	1.9	4.4	
	n = 990	n = 338	**p = 0.004**

Note: * Percent figures reported are column percents.
† p value in **bold** represents significant difference at α=0.01

Table 1.2.2: Comparison of Respondents to Workforce Survey and Respondents to Non-respondent Survey Form

	Respondents (%)*	Non-respondents (%)*	Chi-square test †
Age			
≤ 30	7.4	5.4	
31 to 40	22.1	21.1	
41 to 50	25.5	26.8	
51 to 60	23.9	25.1	
61 to 70	13.4	10.8	
> 70	7.7	10.8	
	n = 1,452	n = 223	p = 0.440
Gender			
Male	56.9	52.7	
Female	43.1	47.3	
	n = 1,478	n = 281	p = 0.190
Employment status			
Work as a pharmacist	71.3	69.7	
Work in pharmacy related field	7.9	5.2	
Working in a non-pharmacy field	3.5	5.5	
Semi-retired	7.1	5.2	
Retired	7.6	10.3	
Not employed	2.6	4.1	
	n = 1,485	n = 271	p = 0.072
Employment setting			
Independent	15.4	25.6	
Chain	28.7	28.4	
Mass merchandiser	4.8	1.7	
Supermarket	9.5	8.5	
Hospital	26.9	35.8	
Other patient practice	12.2	0	
Industry	2.5	0	
	n = 1,200	n = 176	**p = 0.000**
Year of licensure			
up to 1960	11.4	11.9	
1961 to 1970	14.0	10.6	
1971 to 1980	26.0	26.7	
1981 to 1990	23.5	24.6	
1991 to 2000	22.4	23.3	
2001 to 2004	2.8	3.0	
	n = 1,445	n = 236	p = 0.848

Note: * Percent figures reported are column percents.
† p value in **bold** represents significant difference at α=0.01

Table 1.2.3: Comparison of Workforce Survey Sample Estimates with 2004 National Estimates for Characteristics of Actively Practicing Pharmacists

	Workforce Survey † (n = 1,264) %* (95% CI)	2004 National Estimates (n = 227,345) %*
Gender		
Male	54.1 (56.9-51.3)	53.9
Female	45.9 (48.7-43.1)	46.1
Race		
White	87.0 (90.9-83.1)	87.7
Asian	**7.6 (9.1-6.1)**	9.7
Other	**5.4 (6.7-4.1)**	2.6
Marital Status		
Married	82.1 (84.3-79.9)	80.0
Not Married	17.9 (20.1-15.7)	20.0
Age Group		
21-30	**9.0 (10.6-7.4)**	16.3
31-40	**24.0 (26.4-21.6)**	29.2
41-50	**27.8 (30.3-25.3)**	22.3
51-60	**24.7 (27.1-22.3)**	14.9
>60	**14.6 (16.6-12.6)**	17.3
Region		
West	**18.0 (20.2-15.8)**	20.3
South	**42.0 (44.8-39.2)**	37.5
Northeast	**14.9 (16.9-12.9)**	17.2
Midwest	25.2 (27.6-22.8)	25.0

Note: National estimates are derived from pharmacists in the Current Population Survey's Outgoing Rotation Group (ORG) for 2004. The pharmacist sample size for the 2004 ORG is 325 and represents 227,345 actively practicing pharmacists.
* Percent figures reported are column percents.
† values in **bold** represent significant difference

Table 1.2.4: Comparison of Workforce Survey Sample Estimates with 2004 National Estimates for Characteristics of Male and Female Actively Practicing Pharmacists

	Male† Workforce Survey (n = 684) %*	Male 2004 National Estimates (n =122,422) %*	Female† Workforce Survey (n = 580) %*	Female 2004 National Estimates (n =104,923) %*
Race				
White	89.9 (92.3-87.5)	88.5	83.6 (86.8-80.4)	86.7
Asian	7.0 (9.0-5.0)	9.0	8.4 (10.8-6.0)	10.6
Other	3.1 (4.4-1.8)	2.5	**8.0 (10.3-5.7)**	2.7
Marital Status				
Married	**86.2 (88.8-83.6)**	83.0	77.3 (80.9-73.7)	76.7
Not Married	**13.8 (16.4-11.2)**	17.0	22.7 (26.3-19.1)	23.3
Age Group				
21-30	**4.5 (6.1-2.9)**	10.1	**14.2 (17.2-11.2)**	23.4
31-40	**14.5 (17.2-11.8)**	17.4	**35.2 (39.2-31.2)**	42.9
41-50	24.3 (27.6-21.0)	22.5	**31.9 (35.8-28.0)**	22.0
51-60	**32.2 (35.8-28.6)**	23.5	**15.7 (18.7-12.7)**	4.9
>60	24.5 (27.8-21.2)	26.5	**3.0 (4.4-1.6)**	6.8
Region				
West	19.7 (22.7-16.7)	21.7	15.9 (18.9-12.9)	18.7
South	42.2 (46.0-38.4)	38.7	**41.8 (46.0-37.6)**	36.1
Northeast	15.3 (18.1-12.5)	18.1	14.3 (17.1-11.3)	16.1
Midwest	22.8 (26.0-19.6)	21.5	28.0 (31.8-24.2)	29.1

Note: National estimates are derived from pharmacists in the Current Population Survey's Outgoing Rotation Group (ORG) for 2004. The pharmacist sample size for the 2004 ORG is 325 and represents 227,345 actively practicing pharmacists. The sample size for males in the 2004 ORG is 179, and for females is 146.

* Percent figures reported are column percents.

† values in **bold** represent significant difference

Section 2: Characteristics of Pharmacists

2.1 Characteristics of Licensed Pharmacists

The core workforce survey contained questions about pharmacists' employment status, where they work and their position, compensation and hours worked, and individual background information. The following tables summarize information contained in these sections of the core workforce survey.

Tables 2.1.1 through 2.1.3 contain summaries of licensed pharmacists by work status. Overall, 86.0% (68.3% full-time and 17.7% part-time) of licensed pharmacists responding to the survey in 2004 were actively practicing pharmacy, slightly less than the 88.2% that resulted in the 2000 workforce survey (Table 2.1.1). The difference in the percents of actively practicing pharmacists results from more survey respondents in 2004 being retired or not working, which could reflect increased retirement or migration out of the practicing workforce. The proportion of both male and female pharmacists working part-time increased from 2000 to 2004. For females, the rate increased from 21.3% in 2000 to 24.0% in 2004. For males, the rate increased from 9.9% in 2000 to 12.8% in 2004.

As would be expected given the conversion of schools of pharmacy to all Doctor of Pharmacy (Pharm.D.) degrees, the proportion of licensed pharmacist respondents who held a Pharm.D degree increased between 2000 and 2004 (Table 2.1.2). The racial diversity of the licensed pharmacists responding to the surveys did not change between 2000 and 2004. The results in 2004 suggest an aging population of pharmacists; over 30% of the population was over age 55 in 2004 compared to 21% in 2000 (Table 2.1.3).

2.2 Characteristics of Actively Practicing Pharmacists

Tables 2.2.1 through 2.2.5 summarize the characteristics of pharmacists actively practicing pharmacy (working as a pharmacists in a licensed pharmacy or in a pharmacy-related field or position). Overall, 45.9% of practicing pharmacists responding to the survey in 2004 were female, which is a slight increase from 2000. Over one-fourth of female pharmacists worked part-time and 15.4% of males worked part-time (Table 2.2.1). The rate of part-time work among male and female actively practicing pharmacists increased between 2000 and 2004.

The age distribution of actively practicing pharmacists also changed between 2000 and 2004. In 2000, 44.1% of practicing pharmacists were age 40 or younger and this proportion decreased to 33% in 2004. Conversely, in 2000 16.7% of practicing pharmacists were over age 55 and this proportion increased to 24.6% in 2004.

Table 2.2.2 shows all categories of practice settings reported by actively practicing pharmacists that responded to the survey and Table 2.2.3 shows the results when respondents' practice settings were condensed in main employment setting categories. The condensed categories are used throughout this report. The proportion of actively

practicing pharmacists working in chain settings increased from 23.5% in 2000 to 27.7% in 2004 (Table 2.2.2 and Table 2.2.3). The proportion of pharmacists working in traditional community pharmacy practice settings (independent, chain, mass merchandiser, and supermarket pharmacies) remained relatively stable between 2000 (55.4%) and 2004 (56.4%). The rate of part-time work for pharmacists in independent settings, chains, mass merchandisers, and hospitals increased between 2000 and 2004. Among pharmacists working part-time, there was a large increase between 2000 and 2004 in the proportion of pharmacists working in chains (16.1% in 2000 versus 29.0% in 2004).

A comparison of practicing pharmacists categorized by employment position shows the proportion of pharmacists in management positions that were female increased from 37.0% to 41.2% between 2000 and 2004 (Table 2.2.4). In 2004, within the gender groups, 31.3% of male pharmacists were in management positions and 25.8% of female pharmacists were in management positions.

The extent of part-time work among males increased after age 50 which is similar to 2000 (Table 2.2.5). Between 2000 and 2004 the rate of part-time work increased for male pharmacists aged 23-30, 56-60 and 66-70. For both men and women, the proportions of older pharmacists working part time increased in 2004; 83.8% of male pharmacists over age 55 worked part time in 2004 as opposed to 70.0% in 2000. The proportion of women between the ages of 31 and 45 working part time decreased in 2004 (71.0% to 54.2%), but the proportion of women aged 46 to 50 working part-time increased (9.3% to 20.0%).

A comparison by age and gender of work status for actively practicing pharmacists reveals nearly all male pharmacists work full-time up through age 55, but between the ages of 31 and 60, approximately 30% of female pharmacists work part-time (Table 2.2.5). These patterns were similar for 2000 and 2004. Among male pharmacists, slightly fewer pharmacists in younger age categories worked part-time in 2004; 83.8% of male pharmacists who worked part time in 2004 were over 55 years old, compared to 70.0% in 2000.

Comparisons of full-time practicing pharmacists across practice settings reveals that in independent, chain, and mass merchandiser pharmacies, the ratio of men to women pharmacists was roughly 2:1 but in other settings there was an equal or nearly equal ratio of men to women (Table 2.2.6). Comparing where men and women work shows chain pharmacy is the most common employment setting for men and hospital pharmacy is the most common setting for women. Although both these categories also were the most common employment setting for men and women pharmacists in 2000, the percents of both men and women employed in those settings increased in 2004 over 2000.

For part-time pharmacists in 2004 (Table 2.2.7), chain pharmacy was the most common employment setting (29.0%), followed by independent (25.9%), and hospital pharmacy (20.1%). For both men and women part-time pharmacists, chain was the most common employment setting, but for women, hospital was the second most common setting (25.2%) and independent was the third most common setting (21.3%). For part-time

male pharmacists, only slightly fewer worked in independent versus chain pharmacies (32.7% and 33.7%) and much fewer worked in hospital settings (12.5%). In 2004, the proportion of part-time pharmacists overall working in chains was considerably higher than in 2000 (29.0% versus 16.1%) and fewer pharmacists were in independent settings (25.9% versus 30.9%). Within settings, the gender mix of part-time pharmacists changed somewhat between 2000 and 2004, but a more equal distribution of pharmacists by gender continued in independent and chain settings compared to other settings.

2.3 Hours Worked by Actively Practicing Pharmacists

In 2004, among pharmacists working full-time, males worked 2.1 hours more per week compared to females (Table 2.3.1). For full-time pharmacists working in community (independent, chain, mass merchandiser, supermarket) and hospital settings, pharmacists in independent settings worked the most hours weekly (44.4). The higher average hours per week for pharmacists in independent settings may be due to pharmacy owners that were included in that group. Interestingly, pharmacists working in chains, supermarkets, and mass merchandisers worked fewer hours per week than pharmacists in hospitals. Between 2000 and 2004 the number of hours worked by full-time male and female pharmacists declined. The difference in hours worked between men and women working full-time was similar in 2000 and 2004.

Female pharmacists working part-time worked more hours per week than males working part-time (20.3 vs. 17.3). Since, overall, part-time pharmacists contribute an average of 19.1 hours per week to the pharmacist workforce, they represent half-time employees and shouldn't be considered casual contributors to the workforce. Between 2000 and 2004 the number of hours worked weekly by part-time pharmacists remained fairly stable but the difference in hours worked between men and women increased.

Consistently across age groups, males working full-time worked more hours per week compared to females (except for pharmacists age 66-70) (Table 2.3.2). For both males and females working part-time, older pharmacists tended to work fewer hours relative to younger pharmacists.

Male full-time pharmacists worked more hours per week across all position types compared to females (Table 2.3.3). Compared to 2000, pharmacists working full-time in 2004 worked fewer hours weekly and pharmacists in ownership and management positions had the largest decreases. For pharmacists working part-time, pharmacists in management positions worked more hours weekly than pharmacists in staff positions. Also, females working part-time in staff and management positions worked more hours relative to males.

Pharmacists were asked to report both their actual and scheduled hours worked per week in their primary employment. Table 2.3.4 summarizes the differences between the actual work hours and scheduled work hours for pharmacists categorized by gender, position, age, and setting. Generally, pharmacists worked a few extra hours each week above and beyond their scheduled hours, and the differences were similar except for managers or

owner/partners versus staff pharmacists. With few exceptions, the differences between actual and scheduled hours were larger in 2000 than in 2004, consistent with the decrease in hours worked per week that occurred between 2000 and 2004.

A full-time equivalent (FTE) was calculated using the number of reported total hours worked in primary employment and the number of weeks worked annually. We defined 1.0 FTE as a pharmacist working 40 hours per week, 52 weeks per year, or 2080 hours. In 2004, pharmacists were contributing an average of 0.87 FTE to the workforce (Table 2.3.5). This was a decline from 2000, when pharmacists were providing 0.93 FTE. This equates to a real decline of 2.4 hours per week on average. The FTE contribution for male pharmacists was greater than that of female pharmacists overall (0.91 and 0.82 respectively) and for nearly all age categories. The FTE contributions of pharmacists were consistent through age categories up to 60 years old; only in their 60's, did pharmacists begin to work less.

2.4 Hourly Wage for Actively Practicing Pharmacists

Pharmacists reported earnings either as hourly wage rates or gross earnings per pay period. Using this information combined with scheduled weekly hours worked, we were able to calculate hourly wage rates for actively practicing pharmacists.

Males working full-time earned a higher wage ($45.56) compared to females ($43.47) (Table 2.4.1). This result was consistent across practice settings except for mass merchandiser pharmacies. Interestingly, pharmacists working part-time earned a wage ($44.43) similar to pharmacists working full-time ($44.61). Relative to 2000, wage rates for pharmacists working full-time in 2004 were less variable across practice settings. The nominal wage growth between 2000 and 2004 was 38% (8.4% growth rate per year) for both full-time and part-time pharmacists. Wage rates (both full-time and part-time) in independent settings experienced the largest nominal growth between 2000 and 2004 among community (independent, chain, mass merchandiser, supermarket) and hospital settings.

Pharmacists working full-time in management positions earned greater than $4 more per hour than pharmacists working in staff positions (Table 2.4.2). The disparity between staff and management hourly wages in 2004 has increased compared to 2000 ($4.34 per hour vs. $1.38, respectively). The difference in wage rates between males and females working full-time in management positions ($0.83) is less than the difference in staff positions ($2.04). In 2000 the difference between males and females in management positions was $1.34 compared to $1.03 in staff positions. Pharmacists working full-time in management positions have experienced a larger nominal wage growth between 2000 and 2004 compared to pharmacists working full-time in staff positions.

In terms of wage rates by years of experience, wages for full-time pharmacists increased as years of experience increased between 6-10 years up to 30 years of experience (Table 2.4.3). This trend is not consistent for males but is for females. Wage rates for males and

females working full-time peaked at 16-20 years of experience and 26-30 years of experience, respectively.

2.5 Work History of Actively Practicing Pharmacists

Pharmacists reported how long (years) they had worked for their current employer. Males working full-time reported being with their current employers longer than females (Table 2.5.1). Generally, as years of experience increased, years with current employer increased. Pharmacists in independent and chain settings reported being with their employers longer than pharmacists in other practice settings. Overall, pharmacists in 2004 have had longer tenure with their current employer compared to 2000.

The proportion of pharmacists who have been with their employer for less than three years is an indication of turnover; the higher the proportion, presumably the higher is turnover. A higher proportion of females reported being with their employers for less than three years relative to males (Table 2.5.1). The proportion of pharmacists who have been with their current employer less than three years declined by gender, age category, and practice setting compared to 2000.

The career supplement to the workforce survey contained a question asking pharmacists how many different employers they worked for since obtaining their pharmacy license. Dividing years of experience as a pharmacist by the number of employers results in a value estimating average tenure per employer. Tables 2.5.2 through 2.5.4 contain summaries of these variables for pharmacists working full-time.

Overall in 2004, pharmacists reported they worked for 3.9 employers and spent 6.8 years per employer (Table 2.5.2). Males reported they worked for more employers and worked longer per employer relative to females. Females in 2004 reported they worked for employers longer relative to 2000.

As years of experience increased, pharmacists worked for more employers and worked longer per employer (Table 2.5.3). The results in 2000 were similar to those in 2004 across years of experience categories. In terms of practice setting, pharmacists who worked in independent and chain settings worked the longest per employer (Table 2.5.4). Pharmacists in supermarkets reported they worked for the fewest employers. Between 2000 and 2004 there was a general increase in tenure with an employer across the practice settings.

2.6 Debt Load for Pharmacists Working Full-time

The core workforce survey contained questions asking pharmacists to report their total household debt, the amount of their student loan debt when they graduated from pharmacy school, and their current level of student loan debt. Tables 2.6.1 and 2.6.2 summarize this information for pharmacists working full-time.

Overall, pharmacists reported current student loan debt of $3,132 compared to $11,772 when they graduated from pharmacy school (Table 2.6.1). Females reported higher levels of both student loan debt when they graduated and current student loan debt relative to males.

Examining debt levels by years of experience provides some insight into the growth of the burden of debt due to increased pharmacy school tuition as well as how quickly pharmacists paid back student loans. Student loan debt amount at time of graduation was $10,975 for pharmacists with 11-15 years of experience and was $42,600 for pharmacists with 0-5 years of experience (Table 2.6.2). Also, the proportion of pharmacists with no student loan debt at graduation dropped from 37% for pharmacists with 11-15 years of experience to 20% for pharmacists with 0-5 years of experience.

Current student loan debt was $28,854 for pharmacists with 0-5 years of experience and $6,822 for pharmacists with 6-10 years of experience. It appears that pharmacists with 0-5 years of experience committed more money per year of experience to reduce student loan debt compared to pharmacists with more than 10 years of experience. Over 90% of pharmacists with 11-15 years of experience, 69% of pharmacists with 6-10 years of experience, and 28% of pharmacists with 0-5 years of experience currently had no student loan debt.

Table 2.1.1: Licensed Pharmacists' Work Status by Gender (2004 and 2000)

		Working			Not Working	
		Pharmacy				
Gender	Licensed pharmacists	Full-time	Part-time	Not in Pharmacy	Retired	Not Retired
2004		# of Cases				
Male	823	579	105	37	90	12
Female	647	425	155	17	22	28
Total	1,470	1,004	260	54	112	40
		% of Row				
Male		70.3	12.8	4.5	10.9	1.5
Female		65.6	24.0	2.6	3.4	4.3
Total		68.3	17.7	3.7	7.6	2.7
		% of Column				
Male	56.0	57.7	40.4	68.5	80.4	30.0
Female	44.0	42.3	59.6	31.5	19.6	70.0
2000		# of Cases				
Male	1,187	901	118	44	111	13
Female	905	633	193	18	19	42
Total	2,092	1,534	311	62	130	55
		% of Row				
Male		75.9	9.9	3.7	9.4	1.1
Female		69.9	21.3	2.0	2.1	4.6
Total		73.3	14.9	3.0	6.2	2.6
		% of Column				
Male	56.7	58.7	37.9	71.0	85.4	23.6
Female	43.3	41.3	62.1	29.0	14.6	76.4

Note: Results based on respondents who provided information for a minimum set of variables in the core survey (work status, gender, age, hours worked weekly at primary employment setting, and practice setting). Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000."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, health care administration, other, retail businesses, and education.

Table 2.1.2: Licensed Pharmacists' Work Status by Race and Highest Degree (2004 and 2000)

	Licensed pharmacists		Working			Not Working	
			Pharmacy				
			Full-time	Part-time	Not in Pharmacy	Retired	Not Retired
2004	n	% of Column	% of Row				
Race							
White	1,279	87.6	66.8	18.6	3.9	7.8	2.9
Black	32	2.2	78.1	6.3	--	15.6	--
Asian	102	7.0	87.0	9.0	2.0	2.9	1.0
Other	46	3.2	65.2	21.7	2.2	6.5	4.3
Total*	1,457	99.3	68.3	17.7	3.6	7.6	2.7
Highest Degree							
B.S.	1,033	71.2	66.0	20.5	2.2	9.3	2.0
PharmD	270	18.6	79.3	10.4	3.7	1.5	2.0
MS/MBA	106	7.3	70.8	12.3	9.4	6.6	0.9
Ph.D.	24	1.7	54.2	4.2	25.0	12.5	4.2
Other	18	1.2	50.0	11.1	22.2	5.6	11.1
Total*	1,449	98.7	68.4	17.6	3.7	7.7	2.7
2000	n		% of Row				
Race							
White	1,837	87.8	72.5	15.2	3.0	6.6	2.7
Black	45	2.2	77.8	6.7	6.7	8.9	--
Asian	148	7.1	77.7	15.5	1.4	2.7	2.7
Other	62	3.0	83.9	9.7	3.2	--	3.2
Total	2,092	100.0	73.3	14.9	3.0	6.2	2.6
Highest Degree							
B.S.	1,550	74.1	71.2	16.6	2.0	7.4	2.8
PharmD	290	13.9	83.8	10.3	2.1	2.1	1.7
MS/MBA	136	6.5	75.0	7.4	11.8	2.9	2.9
Ph.D.	17	0.8	64.7	17.6	5.9	11.8	--
Other	99	4.7	74.7	11.1	8.1	4.0	2.0
Total	2,092	100.0	73.3	14.9	3.0	6.2	2.6

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." 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, health care administration, other, retail businesses, and education.

*Total not equal to 1,470 due to missing data.

Table 2.1.3: Licensed Pharmacists' Work Status by Age Category (2004 and 2000)

			Working			Not Working	
			Pharmacy				
Age Category	Licensed pharmacists		Full-time	Part-time	Not in Pharmacy	Retired	Not Retired
2004	n	% of column	% of Row				
24-30	116	7.9	89.7	7.8	0.9	--	1.7
31-35	167	11.4	72.5	20.4	1.2	0.6	5.4
36-40	159	10.8	75.9	17.7	3.2	--	3.2
41-45	171	11.6	78.2	14.7	3.5	--	3.5
46-50	206	14.0	77.2	16.5	2.9	--	3.4
51-55	201	13.7	81.1	10.9	6.5	0.5	1.0
56-60	154	10.5	68.8	13.0	9.7	7.1	1.3
61-65	98	6.7	59.2	17.3	2.0	17.3	4.1
66-70	90	6.1	31.1	34.4	2.2	30.0	2.2
>70	108	7.4	9.3	37.0	1.9	50.9	0.9
Total	1,470	100.0	68.3	17.7	3.7	7.6	2.7
2000	n		% of Row				
23-30	286	13.7	92.0	5.6	1.4	--	1.0
31-35	263	12.6	77.9	17.9	1.5	--	2.7
36-40	310	14.8	72.3	19.0	3.9	--	4.8
41-45	309	14.8	80.3	14.6	2.6	0.3	2.3
46-50	273	13.0	82.8	9.2	3.7	0.7	3.7
51-55	198	9.5	80.3	9.6	6.6	2.5	1.0
56-60	166	7.9	72.9	10.8	4.2	9.6	2.4
61-65	92	4.4	57.6	25.0	1.1	15.2	1.1
66-70	97	4.6	27.8	29.9	1.0	39.2	2.1
>70	98	4.7	8.2	30.6	2.0	55.1	4.1
Total	2,092	100.0	73.3	14.9	3.0	6.2	2.6

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." 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, health care administration, other, retail businesses, and education.

Table 2.2.1: Actively Practicing Pharmacists' Work Status by Gender and Age Category (2004 and 2000)

		% by Row		% by Column		
	All Cases	Full-time	Part-time	All Pharm.	Full-time	Part-time
Gender	n					
2004						
Male	684	84.6	15.4	54.1	57.7	40.4
Female	580	73.2	26.8	45.9	42.3	59.6
Total	1,264	79.4	20.6	100.0	100.0	100.0
2000						
Male	1019	88.4	11.6	55.2	58.7	37.9
Female	826	76.6	23.4	44.8	41.3	62.1
Total	1,845	83.1	16.9	100.0	100.0	100.0
Age Category						
2004						
24-30	113	92.0	8.0	9.0	10.4	3.5
31-35	155	78.1	21.9	12.3	12.1	13.1
36-40	149	81.1	18.9	11.7	12.0	10.8
41-45	159	84.2	15.8	12.5	13.3	9.6
46-50	193	82.4	17.6	15.3	15.9	13.1
51-55	185	88.1	11.9	14.7	16.3	8.5
56-60	126	84.1	15.9	10.0	10.6	7.7
61-65	75	77.3	22.7	5.9	5.8	6.5
66-70	59	47.5	52.5	4.7	2.8	11.9
>71	50	20.0	80.0	4.0	1.0	15.4
Total	1,264	79.4	20.6	100.0	100.0	100.0
2000						
23-30	279	94.3	5.7	15.1	17.1	5.1
31-35	252	81.3	18.7	13.7	13.4	15.1
36-40	283	79.2	20.8	15.3	14.6	19.0
41-45	293	84.6	15.4	15.9	16.2	14.5
46-50	251	90.0	10.0	13.6	14.7	8.0
51-55	178	89.3	10.7	9.6	10.4	6.1
56-60	139	87.1	12.9	7.5	7.9	5.8
61-65	76	69.7	30.3	4.1	3.5	7.4
66-70	56	78.2	51.8	3.0	1.8	9.3
>71	38	21.1	78.9	2.1	0.5	9.6
Total	1,845	83.1	16.9	100.0	100.0	100.0

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." Actively practicing is defined as a licensed pharmacist who is working full-time or part-time in their primary employment 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' Work Status by Non-condensed Primary Employment Practice Setting (2004 and 2000)

	% by Row			% by Column		
Practice Setting	**All Cases**	**Full-time**	**Part-time**	**All Cases**	**Full-time**	**Part-time**
2004						
Independent (<4 units)	190	64.7	35.3	15.1	12.3	25.8
Small Chain (4-10 units)	30	62.1	37.9	2.3	1.8	4.2
Large Chain (>10 units)	320	80.0	20.0	25.4	25.5	24.6
Mass Merchandiser	57	75.4	24.6	4.5	4.3	5.4
Supermarket	115	89.6	10.4	9.1	10.3	4.6
Mail Service	35	85.7	14.3	2.8	9.0	1.9
Government Hospital / Health System	73	83.6	16.4	5.8	6.1	4.6
Non-government Hospital	239	83.2	16.8	18.9	19.8	15.4
Nursing Home / Long Term Care	38	71.1	28.9	3.0	2.7	4.7
Home Health / Infusion	28	78.6	21.4	2.2	2.2	2.3
HMO Operated Pharmacy	10	90.0	10.0	0.8	0.9	0.4
Clinic Pharmacy	21	66.7	33.3	1.7	1.4	2.7
Nuclear	10	90.0	10.0	0.8	0.9	0.4
Industry	27	96.3	3.7	2.1	2.6	0.4
MCO/PBM	11	100.0	--	0.9	1.1	--
Education / Academia	12	100.0	--	0.3	0.4	--
Government (FDA, etc)	4	100.0	--	0.3	0.4	--
Other	44	81.8	18.2	3.5	3.6	3.1
Total	1,264			100	100	100
2000						
Independent (<4 units)	300	68.0	32.0	16.3	13.3	30.9
Small Chain (4-10 units)	30	76.7	23.3	1.6	1.5	2.3
Large Chain (>10 units)	404	89.4	10.6	21.9	23.5	13.8
Mass Merchandiser	122	86.9	13.1	6.6	6.9	5.1
Supermarket	166	86.1	13.9	9.0	9.3	7.4
Mail Service	40	85.0	15.0	2.2	2.2	1.9
Government Hospital / Health System	106	90.6	9.4	5.7	6.3	3.2
Non-government Hospital	338	84.3	15.7	18.3	18.6	17.0
Nursing Home / Long Term Care	70	81.4	18.6	3.8	3.7	4.2
Home Health	44	81.8	18.2	2.4	2.3	2.6
HMO Operated Pharmacy	27	74.1	25.9	1.5	1.3	2.3
Clinic Pharmacy	41	80.5	18.5	2.2	2.2	2.6

Nuclear	10	90.0	10.0	0.5	0.6	0.3
Industry	44	95.5	4.5	2.4	2.7	0.6
MCO/PBM	24	91.7	8.3	1.3	1.4	0.6
Education / Academia	22	86.4	13.6	1.2	1.2	1.0
Government (FDA, etc)	11	100	--	0.6	0.7	--
Armed Services	3	66.7	33.3	0.2	0.1	0.3
Other	43	72.1	27.9	2.3	2.0	3.9
Total	1,845	83.1	16.9	100	100	100

Note**:** Results based on respondents who provided information for a minimum set of variables in the core survey. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." Actively practicing is defined as a licensed pharmacist who is working full-time or part-time in their primary employment setting. Pharmacists were classified as working part-time if they worked 30 hours or less per week in their primary employment. Clinic, Nuclear, Industry, MCO/PBM, Education/academia, Government, and Other were written in for an "Other" category on the survey form.

Table 2.2.3: Actively Practicing Pharmacists' Work Status by Primary Employment Practice Setting (2004 and 2000)

	% by Row			% by Column		
Practice Setting	**All Cases**	**Full-time**	**Part-time**	**All Cases**	**Full-time**	**Part-time**
2004						
Independent	190	64.7	35.3	15.1	12.3	25.9
Chain	350	78.5	21.5	27.7	27.3	29.0
Mass Merchandiser	57	75.4	24.6	4.5	4.3	5.4
Supermarket	115	89.6	10.4	9.1	10.3	4.6
Hospital	312	83.3	16.7	24.7	25.8	20.1
Other Patient Care Practice	148	77.6	22.4	11.7	11.4	12.7
Industry	27	96.3	3.7	2.1	206	0.4
Other (non-patient care)	65	92.3	7.7	5.2	6.0	1.9
Total	1,264	79.5	20.5	100	100	100
2000						
Independent	300	68.0	32.0	16.3	13.3	30.9
Chain	434	88.5	11.5	23.5	25.0	16.1
Mass Merchandiser	122	86.9	13.1	6.6	6.9	5.1
Supermarket	166	86.1	13.9	9.0	9.3	7.4
Hospital	444	85.8	14.2	24.1	24.8	20.3
Other Patient Care Practice	257	80.9	19.1	13.9	13.6	15.8
Industry	44	95.5	4.5	2.4	2.7	0.6
Other (non-patient care)	78	84.6	15.4	4.2	4.3	3.9
Total	1,845	83.1	16.9	100	100	100

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." Actively practicing is defined as a licensed pharmacist who is working full-time or part-time in their primary employment setting. 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, home health, and armed services. 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 2.2.4: Actively Practicing Pharmacists' Primary Employment Position by Gender (2004 and 2000)

		% by Row		% by Column		
Position	**# of Cases**	**Males**	**Females**	**All Cases**	**Males**	**Females**
2004						
Owner/Partner	82	85.4	14.6	6.5	10.3	2.1
Management	364	58.8	41.2	28.8	31.3	25.8
Staff	814	48.9	51.1	64.7	58.4	72.1
Total	1,260*	54.1	45.9	100.0	100.0	100.0
2000						
Owner, Partner	130	85.4	14.6	7.0	10.9	2.3
Management	552	63.0	37.0	29.9	34.1	24.7
Staff	1162	48.2	51.8	63.1	55.0	73.0
Total	1,844†			100.0	100.0	100.0

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000" Actively practicing is defined as a licensed pharmacist who is working full-time or part-time in their primary employment setting. Partner is defined as ≥ 25% ownership. Management includes manager, director, supervisor, assistant manager.
*Total not equal to 1,264 due to missing data.

†Total not equal to 1,845 due to missing data.

Table 2.2.5: Actively Practicing Pharmacists by Work Status versus Age Category by Gender (2004 and 2000)

	2004 % by Row			2000 % by Row		
	All Cases	**Full-time**	**Part-time**	**All Cases**	**Full-time**	**Part-time**
Age Category-Males						
23-30	31	93.5	6.5	84	96.4	3.6
31-35	42	97.6	2.4	96	96.9	3.1
36-40	57	100.0	0.0	114	95.6	4.4
41-45	67	97.0	3.0	134	95.5	4.5
46-50	100	97.0	3.0	182	96.2	3.8
51-55	130	93.1	6.9	138	92.8	7.2
56-60	90	88.9	11.1	118	90.7	9.3
61-65	68	80.9	19.1	69	71.0	29.0
66-70	53	47.2	52.8	49	49.0	51.0
>71	46	19.6	80.4	35	20.0	80.0
Total	684	84.6	15.4	1,019	88.4	11.6
Age Category-Females						
23-30	82	91.5	8.5	195	93.3	6.7
31-35	113	70.8	29.2	156	71.8	28.2
36-40	92	69.2	30.8	169	68.0	32.0
41-45	92	75.0	25.0	159	75.5	24.5
46-50	93	66.7	33.3	69	73.9	26.1
51-55	55	76.4	23.6	40	77.5	22.5
56-60	36	72.2	27.8	21	66.7	33.3
61-65	7	42.9	57.1	7	57.1	42.9
66-70	6	50.0	50.0	7	42.9	57.1
>71	4	25.0	75.0	3	33.3	66.7
Total	580	73.2	26.8	826	76.6	23.4
	% by Col			% by Col		
	All Cases	Full-time	Part-time	All Cases	Full-time	Part-time
Age Category-Males						
23-30	31	5.0	1.9	84	9.0	2.5
31-35	42	7.1	1.0	96	10.3	2.5
36-40	57	9.8		114	12.1	4.2
41-45	67	11.2	1.9	134	14.2	5.1
46-50	100	16.8	2.9	182	19.4	5.9
51-55	130	20.9	8.6	138	14.2	8.5
56-60	90	13.8	9.5	118	11.9	9.3
61-65	68	9.5	12.4	69	5.4	16.9

66-70	53	4.3	26.7	49	2.7	21.2
>71	46	1.6	35.2	35	0.8	23.7
Total	684	100	100	1019	100	100
Age Category-Females						
23-30	82	17.6	4.5	195	28.8	6.7
31-35	113	18.8	21.3	156	17.7	22.8
36-40	92	15.1	18.1	169	18.2	28.0
41-45	92	16.2	14.8	159	19.0	20.2
46-50	93	14.6	20.0	69	8.1	9.3
51-55	55	9.9	8.4	40	4.9	4.7
56-60	36	6.1	6.5	21	2.2	3.6
61-65	7	0.7	2.6	7	0.6	1.6
66-70	6	0.7	1.9	7	0.5	2.1
>71	4	0.2	1.9	3	0.2	1.0
Total	580	100	100	826	100	100

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." Actively practicing is defined as a licensed pharmacist who is working full-time or part-time in their primary employment setting. Pharmacists were classified as working part-time if they worked 30 hours or less per week in their primary employment.

Table 2.2.6: Pharmacists Working Full-time by Gender versus Primary Employment Practice Setting (2004 and 2000)

		% by Row		% by Column		
Practice Setting	**# of Cases**	**Males**	**Females**	**All Cases**	**Males**	**Females**
2004						
Independent	123	73.2	26.8	12.3	15.6	7.8
Chain	275	63.5	36.5	27.3	30.1	23.6
Mass Merchandiser	43	67.4	32.6	4.3	5.0	3.3
Supermarket	103	55.3	44.7	10.3	9.9	10.8
Hospital	260	49.8	50.2	25.8	22.3	30.7
Other Patient Care Practice	114	52.6	47.4	11.4	10.4	12.7
Industry	26	42.3	57.7	2.6	1.9	3.5
Other (non-patient care)	60	46.7	53.3	6.0	4.8	7.5
Total	1,004	57.7	42.3	100.0	100.0	100.0
2000						
Independent	204	74.0	26.0	13.3	16.8	8.4
Chain	384	59.6	40.4	25.0	25.4	24.5
Mass Merchandiser	106	56.6	43.4	6.9	6.7	7.3
Supermarket	143	57.3	42.7	9.3	9.1	9.6
Hospital	381	52.8	47.2	24.8	22.3	28.4
Other Patient Care Practice	208	59.1	40.9	13.6	13.7	13.4
Industry	42	50.0	50.0	2.7	2.3	3.3
Other (non-patient care)	66	51.5	48.5	4.3	3.8	5.1
Total	1,534	58.7	41.3	100.0	100.0	100.0

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." 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, home health, and armed services. 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 2.2.7: Pharmacists Working Part-time by Gender versus Primary Employment Practice Setting (2004 and 2000)

		% by Row		% by Column		
Practice Setting	**# of Cases**	**Males**	**Females**	**All Cases**	**Males**	**Females**
2004						
Independent	67	50.7	49.3	25.9	32.7	21.3
Chain	75	46.7	53.3	29.0	33.7	25.8
Mass Merch.	14	28.6	71.4	5.4	3.8	6.5
Supermarket	12	25.0	75.0	4.6	2.9	5.8
Hospital	52	25.0	75.0	20.1	12.5	25.2
Other Patient Care Practice	34	36.4	63.6	12.7	11.5	13.5
Industry	1	--	100.0	0.4	--	0.6
Other (non-patient care)	5	60.0	40.0	1.9	2.9	1.3
Total	260	40.2	59.8	100.0	100.0	100.0
2000						
Independent	96	59.4	40.6	30.9	48.3	20.2
Chain	50	42.0	58.0	16.1	17.8	15.0
Mass Merchandiser	16	25.0	75.0	5.1	3.4	6.2
Supermarket	23	34.8	65.2	7.4	6.8	7.8
Hospital	63	27.0	73.0	20.3	14.4	23.8
Other Patient Care Practice	49	18.4	81.6	15.8	7.6	20.7
Industry	2	--	100.0	0.6	--	1.0
Other (non-patient care)	12	16.7	83.3	3.9	1.7	5.2
Total	311	37.9	62.1	100.0	100.0	100.0

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." 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, home health, and armed services. 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 2.3.1: Actively Practicing Pharmacists' Mean Weekly Hours Worked in Primary Employment by Work Status and Gender versus Practice Setting (2004 and 2000)

	Full-time			Part-time		
Practice Setting	**All Full-time**	**Males**	**Females**	**All Part-time**	**Males**	**Females**
2004	(n=1,004)	(n=579)	(n=425)	(n=260)	(n=105)	(n=155)
Independent	44.4	46.1	39.8	16.8	15.9	17.7
Chain	42.8	43.7	41.0	18.2	16.2	19.9
Mass Merchandiser	41.1	42.2	38.8	23.7	26.6	22.6
Supermarket	41.2	41.6	40.7	22.8	24.3	22.3
Hospital	43.4	43.7	43.0	20.2	17.5	21.1
Other Patient Care Practice	44.3	45.3	43.3	21.5	19.4	22.7
Industry	48.8	50.9	47.3	12.0	---	12.0
Other (non-patient care)	46.0	47.3	44.9	16.0	16.7	15.0
Total	43.4	44.3	42.2	19.1	17.3	20.3
2000	(n=1,534)	(n=901)	(n=633)	(n=311)	(n=118)	(n=193)
Independent	47.7	49.6	42.5	17.8	17.0	18.9
Chain	43.3	44.2	42.1	19.7	16.4	22.1
Mass Merchandiser	43.3	44.0	42.4	19.1	19.3	19.1
Supermarket	41.9	42.4	41.1	20.5	21.6	20.0
Hospital	43.4	44.1	42.7	19.7	19.2	19.9
Other Patient Care Practice	44.1	44.6	43.3	19.2	16.2	19.8
Industry	46.8	45.6	48.1	20.0		20.0
Other (non-patient care)	47.5	47.5	47.5	18.8	19.0	18.7
Total	44.2	45.1	42.8	19.0	17.6	19.9

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." Actively practicing is defined as a licensed pharmacist who is working full-time or part-time in their primary employment setting. Weekly Hours worked are actual hours worked, rather than scheduled hours worked. 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, home health, and armed services. 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 2.3.2: Actively Practicing Pharmacists' Mean Weekly Hours Worked in Primary Employment by Work Status and Gender versus Age Category (2004 and 2000)

	Full-time			Part-time		
Age Category	**All Full-time**	**Males**	**Females**	**All Part-time**	**Males**	**Females**
2004	(n=1,004)	(n=579)	(n=425)	(n=260)	(n=105)	(n=155)
23-30	43.2	44.6	42.7	20.9	16.0	22.3
31-35	42.1	43.8	41.2	20.8	20.0	20.9
36-40	43.4	44.2	42.7	19.8	---	19.8
41-45	44.5	46.5	42.7	20.3	27.0	19.7
46-50	44.3	45.7	42.1	21.3	16.7	21.8
51-55	43.6	43.6	43.5	19.5	20.3	18.9
56-60	43.2	44.0	40.6	20.5	18.7	22.2
61-65	43.5	43.7	40.0	16.5	16.3	17.0
66-70	39.3	39.3	39.3	17.9	18.1	15.5
>71	42.3	43.2	34.0	15.1	15.1	15.2
Total	43.4	44.3	42.2	19.1	17.2	20.3
2000	(n=1,534)	(n=901)	(n=633)	(n=311)	(n=118)	(n=193)
23-30	43.4	45.0	42.7	16.6	13.0	17.5
31-35	44.0	45.4	42.8	19.4	19.3	19.4
36-40	43.8	44.4	43.2	20.6	26.6	20.0
41-45	43.8	44.7	42.9	20.5	16.1	21.2
46-50	45.6	46.1	44.0	20.0	17.4	21.1
51-55	44.7	45.3	42.4	20.8	22.4	19.0
56-60	44.7	45.2	40.6	21.4	20.9	22.3
61-65	43.0	43.3	39.3	16.5	16.5	16.7
66-70	44.1	44.3	42.3	16.9	17.0	16.3
>71	46.4	47.3	40.0	15.0	14.9	16.5
Total	44.2	45.1	42.8	19.0	17.6	19.9

Note**:** Results based on respondents who provided information for a minimum set of variables in the core survey. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000". Actively practicing is defined as a licensed pharmacist who is working full-time or part-time in their primary employment setting. Weekly Hours worked are actual hours worked, rather than scheduled hours worked. Pharmacists were classified as working part-time if they worked 30 hours or less per week in their primary employment.

Table 2.3.3: Actively Practicing Pharmacists' Mean Weekly Hours Worked in Primary Employment by Work Status and Gender versus Position Type

	Full-time			Part-time		
Position Type	**All Full-time**	**Males**	**Females**	**All Part-time**	**Males**	**Females**
2004	(n=1,003)	(n=578)	(n=425)	(n=260)	(n=105)	(n=155)
Owner, Partner	47.6	48.3	43.2	19.6	20.7	13.0
Management	44.9	45.5	44.1	26.6	22.0	30.0
Staff	42.0	42.7	41.2	18.9	16.6	20.3
Total	43.4	44.3	42.2	19.1	17.2	20.5
2000	(n=1,533)	(n=901)	(n=632)	(n=311)	(n=118)	(n=193)
Owner, Partner	51.5	52.2	47.4	22.9	22.8	23.3
Management	45.8	46.1	45.3	23.0	22.0	24.0
Staff	42.2	42.8	41.6	18.6	16.6	19.6
Total	44.2	45.1	42.9	19.0	17.6	19.9

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." Actively practicing is defined as a licensed pharmacist who is working full-time or part-time in their primary employment setting. Weekly Hours worked are actual hours worked, rather than scheduled hours worked. Pharmacists were classified as working part-time if they worked 30 hours or less per week in their primary employment. Partner is defined as ≥ 25% ownership. Management includes manager, director, supervisor, assistant manager.

Table 2.3.4: Actively Practicing Pharmacists' Mean Difference Between Actual Hours Worked and Scheduled Hours in Primary Employment Versus Gender, Position, Age, and Practice Setting (2004 and 2000)

	Full-time		Part-time	
	2004	**2000**	**2004**	**2000**
Gender	(n=962)	(n=1,523)	(n=236)	(n=298)
Male	2.6	3.8	-0.2	-0.4
Female	2.8	3.1	0.3	0.8
Total	2.6	3.5	0.1	0.4
Position Type	(n=958)	(n=1,522)	(n=236)	(n=298)
Owner, Partner	3.2	6.4	0.0	0.9
Management	4.0	4.9	-1.3	0.2
Staff	1.7	2.4	0.1	0.4
Total	2.6	3.5	0.1	0.4
Age Category	(n=961)	(n=1,523)	(n=236)	(n=298)
23-30	2.7	2.9	0.2	0.0
31-35	1.4	3.1	0.1	-0.2
36-40	3.0	3.5	0.1	0.6
41-45	3.9	3.6	-0.8	1.0
46-50	3.0	4.7	0.0	-0.7
51-55	2.8	3.8	0.0	-1.2
56-60	2.3	3.0	1.1	2.0
61-65	2.3	2.8	0.6	0.9
66-70	0.9	3.5	0.0	0.6
>71	-1.4	8.4	0.1	0.7
Total	2.6	3.5	0.1	0.4
Practice Setting	(n=961)	(n=1,523)	(n=235)	(n=298)
Independent	1.9	4.4	0.0	0.4
Chain	1.9	2.6	0.0	-0.1
Mass Merchandiser	0.2	2.2	-1.6	0.3
Supermarket	1.6	1.6	0.2	0.4
Hospital	2.8	3.7	0.4	0.8
Other Patient Care Practice	4.0	4.2	0.7	0.5
Industry	7.7	8.1	0.0	0.0
Other (non-patient care)	6.1	7.1	0.0	0.6
Total	2.6	3.5	0.1	0.4

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey:

2000". Actively practicing is defined as a licensed pharmacist who is working full-time or part-time in their primary employment setting. Pharmacists were classified as working part-time if they worked 30 hours or less per week in their primary employment. Partner is defined as ≥ 25% ownership. Management includes manager, director, supervisor, assistant manager. 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 (non-patient care) is defined as settings where pharmacists do not provide patient care and is a combination of MCO/PBM, education/academia, government (FDA, etc) and other.

Table 2.3.5: Actively Practicing Pharmacists' Mean Full-time Equivalent (FTE) in Primary Employment by Work Status and Gender versus Age Category (2004 and 2000)

Age Category	All Pharmacists	Males	Females
2004	(n=1,246)	(n=677)	(n=569)
24-30	.94	.95	.93
31-35	.85	1.02	.79
36-40	.88	1.03	.79
41-45	.92	1.05	.83
46-50	.91	1.02	.78
51-55	.92	.95	.86
56-60	.88	.90	.84
61-65	.84	.87	.49
66-70	.64	.63	.65
>71	.46	.46	.38
Total	.87	.91	.82
2000	(n=1,824)	(n=1,006)	(n=818)
23-30	.98	1.04	.96
31-35	.92	1.05	.83
36-40	.91	1.03	.84
41-45	.95	1.03	.88
46-50	1.00	1.05	.88
51-55	.99	1.03	.86
56-60	.97	.99	.83
61-65	.80	.82	.66
66-70	.72	.73	.64
>71	.47	.45	.60
Total	.93	.99	.87

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." Actively practicing is defined as a licensed pharmacist who is working full-time or part-time in their primary employment setting. A pharmacist who works forty hours a week for 52 weeks equals 1.0 "Full Time Equivalent" (FTE). We determined a respondent's FTE value by multiplying actual weekly hours worked in primary employment by weeks worked per year.

Table 2.4.1: Actively Practicing Pharmacists' Mean Hourly Wage in Primary Employment by Work Status and Gender versus Practice Setting (2004 and 2000)

	Full-time			Part-time		
Practice Setting	**All Full-time**	**Males**	**Females**	**All Part-time**	**Males**	**Females**
2004	(n=950)	(n=544)	(n=406)	(n=243)	(n=97)	(n=146)
Independent	42.46	43.32	40.25	46.23	54.43	38.03
Chain	44.48	45.49	42.72	42.33	41.91	42.71
Mass Merchandiser	44.89	44.69	45.31	43.15	45.55	42.08
Supermarket	44.72	46.10	43.00	45.31	46.88	44.72
Hospital	44.27	44.42	44.13	40.70	38.88	41.31
Other Patient Care Practice	43.88	45.55	42.08	49.01	60.04	43.49
Industry	59.11	67.13	52.32	50.00	---	50.00
Other (non-patient care)	45.94	47.40	44.94	62.87	78.92	38.80
Total	44.61	45.46	43.47	44.43	48.82	41.52
2000	(n=1,498)	(n=882)	(n=616)	(n=297)	(n=109)	(n=188)
Independent	28.44	28.66	27.82	28.57	28.69	28.42
Chain	34.38	34.60	34.05	36.12	31.77	39.23
Mass Merchandiser	32.82	32.44	33.34	33.83	33.60	33.91
Supermarket	33.01	33.26	32.68	33.72	34.40	33.36
Hospital	31.59	32.10	31.03	31.76	31.64	31.81
Other Patient Care Practice	32.18	32.79	31.29	32.44	39.96	30.75
Industry	35.14	37.73	32.28	34.01	---	34.01
Other (non-patient care)	30.10	32.04	27.89	39.64	30.50	41.67
Total	32.22	32.54	31.77	32.20	31.28	32.74
Nominal % Change						
Independent	49%	51%	45%	62%	90%	34%
Chain	29%	31%	25%	17%	32%	9%
Mass Merchandiser	37%	38%	36%	28%	36%	24%
Supermarket	35%	39%	32%	34%	36%	34%
Hospital	40%	38%	42%	28%	23%	30%
Other Patient Care Practice	36%	39%	34%	51%	50%	41%
Industry	68%	78%	62%	47%	---	47%
Other (non-patient care)	53%	48%	61%	59%	159%	-7%
Total	38%	40%	37%	38%	56%	27%

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000". Actively practicing is defined as a licensed pharmacist who is working full-time or part-time in their primary employment setting. 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, home health, and armed services. Other (non-patient care) is defined as settings where pharmacists do not provide patient care and is a combination of MCO/PBM, education/academia, government (FDA, etc) and other. Nominal change is defined as (wage 2004 – wage 2000 / wage 2000). Pharmacists reported earnings either as hourly wage rates or gross earnings per pay period. Using this information combined with scheduled weekly hours worked in primary employment setting, we calculated hourly wage rates.

Table 2.4.2: Actively Practicing Pharmacists' Mean Hourly Wage in Primary Employment by Work Status and Gender versus Position (2004 and 2000)

	Full-time			Part-time		
Position	**All Full-time**	**Males**	**Females**	**All Part-time**	**Males**	**Females**
2004	(n=959)	(n=548)	(n=411)	(n=256)	(n=98)	(n=148)
Owner/Partner	45.51	46.20	41.27	105.82	119.72	43.25
Management	47.24	47.58	46.75	42.80	37.33	46.90
Staff	42.90	43.86	41.82	41.48	41.70	41.34
Total	44.60	45.44	43.47	44.41	48.73	41.52
2000	(n=1,497)	(n=882)	(n=615)	(n=297)	(n=109)	(n=188)
Owner/Partner	27.82	27.73	28.46	59.74	35.24	170.00
Management	33.42	33.90	32.56	32.86	34.94	31.01
Staff	32.04	32.53	31.50	31.04	30.57	31.28
Total	32.22	32.54	31.76	32.20	31.28	32.74
Nominal % Change						
Owner/Partner	64%	67%	45%	77%	240%	-75%
Management	41%	40%	44%	30%	7%	51%
Staff	34%	35%	33%	34%	36%	32%
Total	38%	40%	37%	38%	56%	27%

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000". Actively practicing is defined as a licensed pharmacist who is working full-time or part-time in their primary employment setting. Pharmacists were classified as working part-time if they worked 30 hours or less per week in their primary employment. Partner is defined as ≥ 25% ownership. Management includes manager, director, supervisor, assistant manager. Nominal change is defined as (wage 2004 – wage 2000 / wage 2000). In both 2000 and 2004, the number of cases used to determine wage rates for males and females in owner/partner and management positions was less than 10. Also, the number of cases of females in owner/partner positions for full-time in 2004 was less than 10.

Table 2.4.3: Actively Practicing Pharmacists' Mean Hourly Wage in Primary Employment by Work Status and Gender versus Years Experience (2004 and 2000)

	Full-time			Part-time		
Years Experience	**All Full-time**	**Males**	**Females**	**All Part-time**	**Males**	**Females**
2004	(n=947)	(n=544)	(n=403)	(n=242)	(n=96)	(n=146)
0-5	43.07	47.44	41.03	40.45	40.34	40.50
6-10	42.07	44.30	40.92	42.73		42.73
11-15	43.08	43.83	42.46	41.88	45.79	41.66
16-20	45.95	48.50	43.72	42.61	47.75	42.37
21-25	46.62	46.18	47.29	41.85	41.60	41.86
26-30	46.23	45.01	49.36	55.01	84.45	42.39
>30	44.90	45.27	42.97	45.47	46.91	39.19
Total	44.71	45.52	43.62	44.57	48.99	41.67
2000	(n=1,498)	(n=882)	(n=616)	(n=297)	(n=109)	(n=188)
0-5	31.01	30.02	31.43	30.30	25.48	31.61
6-10	31.81	32.86	31.08	32.26	30.39	32.35
11-15	32.40	32.33	32.49	35.08	30.54	35.62
16-20	32.96	33.00	32.90	35.91	40.24	35.56
21-25	33.40	33.74	32.60	30.34	33.65	28.53
26-30	31.97	32.24	30.85	27.43	28.08	26.94
>30	32.10	32.26	30.87	30.52	31.11	27.83
Total	32.22	32.54	31.77	32.20	31.28	32.74
Nominal % Change						
0-5	39%	58%	31%	33%	58%	28%
6-10	32%	35%	32%	32%	-100%	32%
11-15	33%	36%	31%	19%	50%	17%
16-20	39%	47%	33%	19%	19%	19%
21-25	40%	37%	45%	38%	24%	47%
26-30	45%	40%	60%	101%	201%	57%
>30	40%	40%	39%	49%	51%	41%
Total	39%	40%	37%	38%	57%	27%

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000". Actively practicing is defined as a licensed pharmacist who is working full-time or part-time in their primary employment setting. Pharmacists were classified as working part-time if they worked 30 hours or less per week in their primary employment. Nominal change is defined as (wage 2004 – wage 2000 / wage 2000)

Table 2.5.1: Actively Practicing Full-Time Pharmacists' Mean Years with Current Employer in Primary Employment versus Gender, Age, and Practice Setting (2004 and 2000)

	Mean Years with Current Employer		% of pharmacists with current employer for less than 3 years	
	2004	**2000**	**2004**	**2000**
Gender	(n=1,003)	(n=1,518)	(n=1,003)	(n=1,518)
Male	10.8	9.8	18	27
Female	8.3	6.6	22	36
Total	9.7	8.5	20	31
Age Category	(n=1,002)	(n=1,5180	(n=1,002)	(n=1,518)
23-30	3.6	2.9	43	56
31-35	6.1	5.2	18	32
36-40	7.2	7.7	23	28
41-45	8.9	8.8	16	24
46-50	9.7	10.8	19	25
51-55	12.9	12.0	13	24
56-60	15.0	13.1	12	22
61-65	13.4	13.4	19	17
66-70	14.5	16.6	15	22
>71	20.3	26.9	0	0
Total	9.7	8.5	20	31
Practice Setting	(n=1,002)	(n=1,518)	(n=1,002)	(n=1,518)
Independent	15.1	14.3	14	19
Chain	10.0	8.1	17	29
Mass Merchandiser	8.5	6.3	19	40
Supermarket	7.4	6.5	23	38
Hospital	9.9	9.2	21	26
Other Patient Care Practice	6.8	5.8	25	41
Industry	6.3	6.8	31	33
Other (non-patient care)	8.7	6.3	17	38
Total	9.7	8.5	20	31

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000". 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 (non-patient care) is defined as settings where pharmacists do not provide patient care and is a combination of MCO/PBM, education/academia, government (FDA, etc) and other.

Table 2.5.2: Actively Practicing Full-time Pharmacists' Mean Number of Employers and Mean Years per Employer versus Gender (2004 and 2000)

	Male	Female	Total
2004	(n = 198)	(n = 160)	(n = 358)
Mean Number of Employers	4.1	3.6	3.9
Mean Years per Employer	7.4	6.1	6.8
2000	(n = 863)	(n = 607)	(n = 1,470)
Mean Number of Employers	4.0	3.2	3.7
Mean Years per Employer	7.6	4.9	6.5

Note: Based on respondents to the career supplement. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." Full-time pharmacists worked more than 30 hours weekly in their primary employment setting.

Table 2.5.3: Actively Practicing Full-time Pharmacists' Mean Number of Employers and Mean Years per Employer versus Years of Experience (2004 and 2000)

	0-5 years	6-10 years	11-20 years	21-30 years	>30 years	Total
2004	(n = 27)	(n = 56)	(n = 85)	(n = 119)	(n =71)	(n = 358)
Mean Number of Employers	2.0	2.6	3.6	4.4	5.0	3.9
Mean Years per Employer	2.1	3.9	6.2	8.1	9.5	6.8
2000	(n = 244)	(n = 243)	(n = 387)	(n = 390)	(n =206)	(n =1,470)
Mean Number of Employers	2.0	2.8	3.6	4.4	5.5	3.7
Mean Years per Employer	1.9	3.9	6.4	8.9	10.6	6.5

Note: Based on respondents to the career supplement. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." Full-time pharmacists worked more than 30 hours weekly in their primary employment setting.

Table 2.5.4: Actively Practicing Full-time Pharmacists' Mean Number of Employers and Mean Years per Employer versus Primary Employment Setting (2004 and 2000)

	Independent	Chain	Mass Merchandiser	Super-market	Hospital	Other Patient Care	Other	Total
2004	(n = 44)	(n = 99)	(n = 19)	(n = 36)	(n = 89)	(n = 41)	(n = 30)	(n = 358)
Mean Number of Employers	3.6	3.7	3.6	3.4	4.3	3.8	4.5	4.0
Mean Years per Employer	11.0	7.4	5.8	5.9	5.8	4.9	6.2	7.1
2000	(n = 195)	(n = 371)	(n = 103)	(n =136)	(n = 365)	(n = 198)	(n = 102)	(n=1,470)
Mean Number of Employers	3.3	3.4	3.7	4.1	3.6	4.1	4.3	3.7
Mean Years per Employer	9.7	7.0	5.6	5.3	6.3	4.9	4.8	6.5

Note: Based on respondents to the career supplement. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." 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 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. It primarily includes industry, academia, managed care administrators, and government.

Table 2.6.1: Debt Load for Pharmacists Actively Practicing and Working Full-time by Gender

	Male	Female	Total
	(n = 479)	(n = 377)	(n = 856)
Approximate total household debt (e.g. mortgage, student loans, car loans, consumer debt, etc.) (mean $ amount)	$123,960	$138,831	$130,612
% with zero ($0) household debt	13%	12%	12%
Total student loan debt amount at time of graduation from pharmacy school. (mean $ amount)	$8,102	$16,493	$11,772
% with zero ($0) student loan debt at time of graduation. (mean $ amount)	52%	36%	45%
Total student loan debt currently.	$2,527	$5,272	$3,132
% with zero (0) student loan debt currently.	92%	82%	88%

Note**:** Results based on respondents who provided information for a minimum set of variables in the core survey. Full-time pharmacists worked more than 30 hours weekly in their primary employment setting.

Table 2.6.2: Debt Load for Pharmacists Actively Practicing and Working Full-time by Years of Experience

	≤ 5 years	6-10 years	11-15 years	16-20 years	21-25 years	26-30 years	31-35 years	36-40 years	41-45 years	>45 years	Total
	n = 72	n = 123	n = 119	n = 91	n = 130	n = 139	n = 81	n = 50	n = 22	n = 12	n = 839
Approximate total household debt (e.g. mortgage, student loans, car loans, consumer debt, etc.) (mean $ amount)	$184,129	$163,675	$137,472	$141,792	$136,198	$106,555	$121,500	$72,351	$56,845	$70,786	$131,247
% with zero ($0) household debt	2%	6%	8%	12%	11%	12%	15%	22%	41%	64%	12%
Total student loan debt amount at time of graduation from pharmacy school. (mean $ amount)	$42,600	$24,889	$10,975	$9,744	$5,859	$3,397	$2,334	$1,161	$432	$0	$11,848
% with zero ($0) student loan debt at time of graduation	20%	26%	37%	39%	40%	58%	64%	71%	86%	100%	45%
Total student loan debt currently. (mean $ amount)	$28,854	$6,822	$525	$77	$77	$633	$1,099	$0	$0	$0	$3,782
% with zero (0) student loan debt currently.	28%	69%	94%	98%	99%	98%	96%	100%	100%	100%	87%

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Full-time pharmacists worked more than 30 hours weekly in their primary employment setting.

Section 3: Pharmacists' Work Environments

3.1 Prescription Volume and Hours of Operation

The core workforce survey contained questions relating to the daily prescription volume dispensed at a pharmacist's practice site and the hours per week that the pharmacy is staffed. Pharmacists working in hospitals, home infusion settings, and nursing homes were not asked questions about prescription volume in practice settings. The tables in this section of the report contain results for pharmacists who reported working full-time.

In terms of daily pharmacy prescription volume across practicing settings, it was most common for pharmacists to work in settings dispensing between 100 and 200 prescriptions daily (Table 3.1.1). Prescription volume varied across practice setting. Over 75% of pharmacists working in supermarket pharmacies dispensed 200 or fewer prescriptions daily. Conversely, 61% of pharmacists working in chain settings work in settings that dispensed over 200 prescriptions daily. The distribution of pharmacists according to the prescription volume at their practice settings generally was similar between 2000 and 2004.

Overall, a majority of pharmacists worked at settings that are staffed between 41 and 80 hours per week. Most pharmacists (80%) in independent pharmacy settings reported that the pharmacy was staffed for 60 hours or less per week. In all other settings, most pharmacists reported the prescription department operated for more than 60 hours per week and 60% of pharmacists working in hospital settings reported the setting was staffed more than 100 hours per week. Generally the results for hours the pharmacy was staffed by pharmacists were similar in 2000 and 2004.

According to Table 3.1.2 there were not many differences in setting prescription volume and hours that the setting is staffed by pharmacist gender. Changes in these variables between 2000 and 2004 were similar for male and female pharmacists. Table 3.1.3 shows a larger proportion of pharmacists working in staff positions worked in settings that dispensed more than 300 prescriptions daily and worked in settings that were staffed more than 80 hours per week compared to pharmacists working in management positions.

3.2 Pharmacy Staffing

The core workforce survey also contained questions that requested respondents to report the numbers of different staff that typically are on duty and working in close proximity to them during the greatest proportion of their workday. The tables about pharmacy staffing that follow contain information only for pharmacists working full-time.

In 2004, 63% of pharmacists overall reported they worked with one or more pharmacists during their workday and a higher proportion of pharmacists in hospital settings (87%) worked with other pharmacists (Table 3.2.1). More than one-half of pharmacists in independent (52%), chain (52%) and supermarket (61%) pharmacy settings did not work with another pharmacist. Overall, 25% of pharmacists reported working with an intern, and that proportion was similar across all settings except for pharmacists in independent pharmacy settings where 15% of pharmacists

reported typically working with an intern present. At least 40% of pharmacists working in chain and mass merchandiser pharmacies worked with three or more technicians.

Compared with 2000, the results in 2004 revealed more pharmacists were working with an intern during their workday. There also was a trend of increased staffing in terms of technicians and clerks between 2000 and 2004. The proportion of pharmacists working with at least three technicians increased from 33% to 46% between 2000 and 2004. The changes between 2000 and 2004 in the proportion of pharmacists working with at least three technicians were greatest for pharmacists working in independent, chain and mass merchandiser settings.

Slightly more female pharmacists work with at least one additional pharmacist compared to males, 66% and 60%, respectively (Table 3.2.2). Almost 70% of staff pharmacists work with at least one other pharmacist compared to 56% of management pharmacists (Table 3.2.3). This likely is due to the fact that many management pharmacists are owners/sole proprietors of pharmacy settings. Male and female pharmacists and management and staff pharmacists experienced equally the general trend of increased technician staffing in pharmacy settings between 2000 and 2004.

3.3 Technology Present in Practice Setting

Pharmacists that received a workplace supplement in addition to the core survey reported information about the equipment and technology at their practice. They also provided assessments of how equipment and technology affected them and their practice sites. Responses from full-time practicing pharmacists are summarized in the tables for this segment of the report.

Pharmacists were asked to report any and all types of equipment that were used in their practice site. Their responses are summarized in Table 3.3.1. Although the survey merely provided a list of different types of equipment that might be present in pharmacies, for reporting, the equipment is categorized into dispensing-related (e.g., automated dispensing system/robot, tablet/capsule counter, bar coding, etc.) and patient care-related (e.g., blood glucose monitor, blood pressure cuff, etc.) equipment. With a few exceptions, equipment related to facilitating the dispensing process was more common than equipment related to patient care activities.

There was variability across settings in the prevalence of types of equipment that pharmacists reported were used in their practice sites. The most common types of dispensing-related equipment in community pharmacies were automated patient refill request phone systems, bar coding for prescriptions, and tablet/capsule counters. This equipment was present in at least half of the chain pharmacy respondents' practice sites and next most common in mass merchandiser and supermarket pharmacies. As might be expected, IV preparation hoods and TPN/IV admixture equipment were common dispensing-related equipment in hospital practice sites. Hospital pharmacists also reported the highest rate of automated dispensing systems being available in their practice sites. The most common patient care-related equipment was a blood pressure cuff, with over half of all respondents practicing in community pharmacy settings reporting having them available. Among the community pharmacy respondents, there was a tendency for more patient care-related equipment in independent and supermarket pharmacy settings.

To gather information about information technology available and used by the pharmacists or patients at their practice sites, pharmacists checked examples of technology that they used weekly. Internet access and drug information software were the most common information technologies available in all respondents' practice settings (Table 3.3.2). Overall, 76 percent of respondents had internet access and 65 percent had drug information software in their practice sites. In chain, mass merchandiser, and supermarket pharmacies, pharmacy-based web sites were common, reported in approximately two-thirds or more of the sites. Pharmaceutical care profile or documentation systems were least often reported available in independent pharmacies, and in about 60% of cases when documentation systems were available they were computerized (data not shown).

Pharmacists were asked to rate how technology and/or equipment affected them and their practice site in the past year. More than 60 percent of respondent pharmacists reported that equipment and/or technology increased the level of their productivity and the quality of care provided to patients, and about half of respondents reported equipment and technology increased their level of job satisfaction (Table 3.3.3). Less frequently respondents noted that the financial performance of the pharmacy and amount of time spent with patients were increased due to equipment and/or technology. For all of these areas of impact, some (almost always 10 percent or less) pharmacists noted that equipment/technology had a negative effect. Interestingly, although more than half of respondents reported that technology and equipment increased the quality of care, a much smaller proportion (one third) of respondents noted those factors increased time spent with patients. More pharmacists reported that equipment and technology increased versus decreased demands on their time in the pharmacy, whereas the converse was true for time spent in the dispensing process; more pharmacists reported a decrease versus an increase in time spent in dispensing due to equipment and technology.

3.4 Current and Potential Service Provision at Practice Settings

The workplace supplement to the core survey contained questions related to services provided at the pharmacists' practice sites. The questions included services currently offered and whether they received payment for services at their site, the extent of changes that had occurred in their sites to provide services, and perceptions of the entrepreneurial orientation and adequacy of resources available to provide services in their practice sites. The corresponding tables include responses to the workplace supplement for pharmacists practicing full time in patient care.

Specialty services offered in pharmacists' practice sites are shown in Table 3.4.1. Respondents were asked to check from a list of professional and specialty services which ones were offered at their practice sites. The list included a services related to prescriptions or specialty products such as general and specialty compounding, mailed refill reminders, home infusion, veterinary pharmacy, and durable medical equipment, plus patient care services such as immunization, nutritional support, health and wellness screening, pharmacokinetic dosing, and disease state management. Overall, the most common services offered at pharmacist practice sites were general/simple compounding and drug information services, reported by 84.0% and 65.2% of pharmacists respectively. Across all setting types, no other services were offered in more than one-fourth of pharmacists' sites. In community settings, independent and supermarket

pharmacies tended to have a higher profile of services offered (e.g., durable medical equipment was available in nearly two-thirds of independent pharmacies), however some services were more available in chain or mass merchandiser pharmacies. Pharmacokinetic dosing, nutritional support, and a pharmacy newsletter were more prevalent in hospital pharmacy settings, as well as smoking cessation and medication therapy management services. For disease state management services, pharmacists noted the diseases or therapeutic areas that were covered by disease state management programs at their pharmacies. Disease state management programs were most frequently reported offered by respondent pharmacists from hospital settings, followed by independent and supermarket pharmacies (Table 3.4.2). The most common therapeutic areas for disease state management programs were diabetes, anticoagulation, hypertension, and asthma/COPD.

Pharmacists also were asked whether their pharmacy was being paid for any non-dispensing services, and if so, who was paying. Table 3.4.3 shows that overall, 13% of pharmacists reported payment for any non-dispensing patient services in their pharmacies. The lowest rates of occurrence were in mass merchandiser and chain pharmacies. For pharmacies where payment was reported, the most common source of payment was patients themselves (51%), followed by government programs (33%), and health insurance plans (31%) (data not shown in table).

Table 3.4.4 summarizes the perceptions of pharmacists relative to the entrepreneurial orientation of their practice site as an organization. The pharmacists reported their level of agreement with statements reflecting facets of entrepreneurial orientation dimensions. (See Appendix A for the specific items within the dimensions of the entrepreneurial orientation scale.) Overall, sites were rated highest on work ethic and proactiveness, and independent pharmacies were rated higher than other settings on these dimensions. Independent pharmacies also were rated considerably higher on autonomy and chain and mass merchandiser pharmacies were rated considerably higher on competitive aggressiveness. The lowest overall ratings across settings were given to risk taking.

Pharmacists were asked to rate (excellent, very good, good, fair, poor) their practice sites on the adequacy of resources to develop and provide pharmacist and/or pharmacy services. Table 3.4.5 summarizes the overall ratings given by the pharmacists. Overall, only one item, skills to provide services, was rated as at least good on average and, across settings, only mass merchandiser pharmacists gave the item a less than good rating on average. With few exceptions, across settings, average ratings for the adequacy of resources and characteristics were highest for pharmacists in independent settings. Mass merchandiser and hospital settings tended to have the lowest average ratings on items.

Pharmacists were asked to report how much (none, a little, or a lot) various aspects or characteristics of their pharmacies' had been changed to provide innovative pharmacist and/or pharmacy services. Their responses are summarized in Table 3.4.6. Three items, "responsibilities and activities of pharmacy technicians," "the system for documenting patient care," and "layout and workflow of the pharmacy" were noted most often as having been changed "a lot." Overall, no more than 35% of pharmacists reported "a lot" for any characteristics that had been changed in their pharmacies to provide innovative services, however in a few specific settings and, for a few items, slightly more reports of "a lot" of

changes were noted. Several items had overall rates of greater than 50% of responses representing no changes (asking patients to pay for pharmacy services, collection of patient lab data, and financial incentives for pharmacists), with some individual settings having rates of 80% and more on those items.

3.5 Prescriptions Personally Dispensed

The core survey included a question about the average number of prescription orders that the respondent personally dispensed or processed daily. Tables 3.5.1 through 3.5.3 summarize responses to that question for pharmacists in community pharmacy settings. There were differences in personally dispensed prescription volumes when pharmacists were categorized by setting (Table 3.5.1) and by position (Table 3.5.3), but no differences when pharmacists were categorized by gender (Table 3.5.2).

Slightly over one-half of pharmacists reported personally dispensing 120 or more prescriptions daily. Relative to other practice settings, a greater proportion of pharmacists working in chains (45%) personally dispensed greater than 160 prescriptions daily. Overall, between 2000 and 2004 the proportion of pharmacists personally dispensing greater than 160 prescriptions daily increased from 23% to 36%. The proportion of pharmacists personally dispensing more than 160 prescriptions increased between 2000 and 2004 in each practice setting except mass merchandiser. Between 2000 and 2004, the proportion of staff pharmacists personally dispensing more than 160 prescriptions per day increased from 24% to 40% compared to an increase from 21% to 27% for pharmacists in management positions.

3.6 Selected Patient Care Activities

The core workforce survey included questions that asked pharmacists to quantify the numbers of several specific activities they perform daily. Tables 3.6.1 through 3.6.3 summarize responses to these items for pharmacists.

The overall results in Table 3.6.1 show approximately equal proportions of pharmacists served 10 or fewer patients daily (27%) and served greater than 50 patients per day (25%). The typical hospital pharmacist was more likely to serve fewer patients daily, evaluate 1 or more drug levels daily and review 1 or more patient chart daily than a typical pharmacist in the other practice settings. Although there were some variations, generally there was similarity across the settings in the proportion of pharmacists that consulted with various numbers of health care practitioners.

A comparison by gender in Table 3.6.2 reveals a higher proportion of female pharmacists (50%) consulted with 6 or more health care practitioners daily compared to males (43%). Conversely, a higher proportion of males (48%) personally served greater than 30 patients daily compared to females (42%). In terms of position (Table 3.6.3), a higher proportion of staff pharmacists evaluated at least one drug level (43%) and reviewed at least one patient chart (43%) compared to pharmacists in management positions (33% and 35%, respectively). A greater proportion of pharmacists in management positions (51%) served more than 30 patients daily compared to pharmacists in staff positions (42%).

3.7 Interactions With Others

To understand the extent and types of interactions with others at their practice site, the workplace supplement survey included questions where pharmacists were asked to report the average numbers of different individuals that they personally have contact with or provide care for daily, categorized into different modes of communication (face-to-face, via telephone, via facsimile, and via e-mail). The frequencies and modes of daily, personal interactions with patients, prescribers, and others varied by respondent setting (Table 3.7.1), however there was little variation when respondents were categorized by position (Table 3.7.2). The main contrasts in interactions were between community and hospital pharmacist respondents. Community pharmacists had higher numbers of daily interactions with patients or caregivers via face-to-face and telephone contact, but fewer, even rare, face-to-face interactions with nurses. Except for facsimile interactions with prescribers, telephone interactions were the most frequent basis of interactions for non-patient (prescriber, nurse, pharmacist, and third-party payer) contacts by pharmacists. The use of e-mail was very low for all types of interactions reported by pharmacist respondents. The frequencies of daily, personal interactions with others varied only slightly among pharmacists in management and staff positions.

3.8 Allocation of Time

The core workforce survey contained questions that asked pharmacists to report the proportion of time they actually spend and would like to spend in categories of practice activities. Tables 3.8.1 through 3.8.9 summarize the actual, desired, and difference between actual and desired times spent in activities for pharmacists across settings, gender, and position.

There was similarity across the various settings in terms of where pharmacists actually spent their time (Table 3.8.1), but there also was considerable individual variability in responses, as evidenced by relatively high standard deviations in the percents of time reported by pharmacists. Pharmacists spent most of their time dispensing medication followed by patient consultation and business management or drug use management. There has been little change between 2000 and 2004 in terms of where pharmacists actually spent their time during the day. (Note that in 2004 an "other" category was included, but the overall percents of time reported for activities in that category typically were low.)

When asked to report their desired proportion of time in activities, the amounts of time varied from the actual time spent, but responses followed the same pattern in terms of what activities had the most desired time reported (Table 3.8.2). Pharmacists practicing in community settings (i.e. independent, chain, mass merchandiser and supermarket) wanted to spend more time in consultation with patients than the other settings. Pharmacists in mass merchandiser pharmacies wanted to spend the highest amount of time in consultation compared to pharmacists in other settings. This result is similar to data from 2000. Comparing differences between desired versus actual time spent, generally pharmacists actually spent less than their desired amount of time in consultation and drug use management and more than their desired time in dispensing (Table 3.8.3).

In terms of time spent in work activities by gender, women reported spending more time on consultation and drug use management, while men reported spending slightly more time on business management and medication dispensing (Table 3.8.4). Patterns of desired and differences between actual and desired time spent were similar for men and women (Tables 3.8.5 and 3.8.6). As might be expected, pharmacists in management positions reported spending more time in business management activities and less time in consultation, drug use management and dispensing activities compared to pharmacists in staff positions (Table 3.8.7). The desired time in business management activities was higher for pharmacists in management versus staff positions (Table 3.8.8). The difference between time actually spent and desired for business management among managers was small, suggesting their time allocations to these activities seem appropriate to them (Table 3.8.9).

3.9 Ratings of Workload

The core survey also contained questions about pharmacists' perceptions of the workload in their practice settings and how workload has changed in the past year. Over one-half of pharmacists (54%) rated the workload at their settings as high or excessively high and 58% reported that workload increased or increased greatly compared to one year ago (Table 3.9.1). The ratings differed across practice settings as 35% of pharmacists working in supermarkets reported workload at their setting as high or excessively high compared to 59% of chain pharmacists and 61% of hospital pharmacists. Less than one-half of pharmacists working in independent, mass merchandiser, and supermarket pharmacies reported that workload increased or greatly increased compared to one year ago. Comparing perceptions of workload by pharmacist gender, similar proportions of males and females rated their workload as high or excessively high and 61% of females compared to 55% of males reported that workload increased or greatly increased compared to one year ago (Table 3.9.2). Slightly fewer pharmacists in management positions rated workload as high compared to pharmacists in staff positions (Table 3.9.3) However, more pharmacists in management (61%) than staff (56%) positions reported that workload increased compared to one year ago.

Table 3.1.1: Prescription Volume and Hours Pharmacy is Staffed for Pharmacists Working Full-time by Practice Setting

	Independent	Chain	Mass Merchandiser	Super-market	Hospital	Other Patient Care	Other	Total
2004	(n = 124)	(n = 276)	(n = 45)	(n = 103)	(n = 264)	(n = 107)	(n = 13)	(n = 932)
% who work at a setting that dispenses:								
100 or fewer prescriptions daily	15	11	29	34		14		17
101- 200 prescriptions daily	53	28	29	42	*	3	*	33
201- 300 prescriptions daily	23	31	22	13		3		23
301-400 prescriptions daily	6	15	13	5		9		11
> 400 prescriptions daily	3	15	7	6		71		16
% who work at a setting staffed for:								
40 or fewer hours per week	5	5	0	2	13	19	38	8
41 to 60 hours per week	75	10	22	8	11	42	62	24
61-80 hours per week	16	42	62	70	10	11	0	30
81-100 hours per week	3	29	14	18	7	22	0	16
>100 hours per week	0	15	3	2	60	6	0	22
2000	(n = 193)	(n = 355)	(n = 101)	(n = 136)	(n = 197)	(n = 145)	(n = 12)	(n = 1,139)
% who work at a setting that dispenses:								
100 or fewer prescriptions daily	26	9	9	27		27		18
101- 200 prescriptions daily	44	29	38	33	*	12	*	27
201- 300 prescriptions daily	20	32	35	24		10		22
301-400 prescriptions daily	6	13	11	14		8		10
> 400 prescriptions daily	4	17	7	2		42		23
% who work at a setting staffed for:								
40 or fewer hours per week	2	2	1	1	12	19	19	6
41 to 60 hours per week	63	9	22	4	13	40	41	24
61-80 hours per week	31	41	63	74	12	12	12	36
81-100 hours per week	3	34	11	18	10	15	15	18
> 100 hours per week	1	14	3	3	53	14	13	16

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." 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. It primarily includes industry, academia, managed care administrators, and government.

* These cells are empty because the row variables are not applicable to the respective practice settings.

Table 3.1.2: Prescription Volume and Hours Pharmacy is Staffed for Pharmacists Working Full-time by Gender

	Male	Female	Total
2004	(n = 525)	(n = 407)	(n = 932)
% who work at a setting that dispenses:			
100 or fewer prescriptions daily	15	21	17
101- 200 prescriptions daily	35	30	33
201- 300 prescriptions daily	24	21	23
301-400 prescriptions daily	9	13	11
> 400 prescriptions daily	17	15	16
% who work at a setting staffed for:			
40 or fewer hours per week	7	10	8
41-60 hours per week	28	19	24
61-80 hours per week	32	29	30
81-100 hours per week	14	19	16
> 100 hours per week	20	23	22
2000	(n = 692)	(n = 447)	(n = 1,139)
% who work at a setting that dispenses:			
100 or fewer prescriptions daily	18	18	18
101- 200 prescriptions daily	30	23	27
201- 300 prescriptions daily	21	24	22
301-400 prescriptions daily	9	12	10
> 400 prescriptions daily	22	23	23
% who work at a setting staffed for:			
40 or fewer hours per week	6	6	6
41-60 hours per week	26	21	24
61-80 hours per week	34	39	36
81-100 hours per week	18	18	18
> 100 hours per week	16	16	16

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." Full-time pharmacists worked more than 30 hours weekly in their primary employment setting.

Table 3.1.3: Prescription Volume and Hours Pharmacy is Staffed for Pharmacists Working Full-time by Position

	Management	Staff	Total
2004	(n = 367)	(n = 567)	(n = 934)
% who work at a setting that dispenses:			
100 or fewer prescriptions daily	20	15	17
101- 200 prescriptions daily	36	29	33
201- 300 prescriptions daily	25	22	23
301-400 prescriptions daily	7	14	11
> 400 prescriptions daily	12	20	16
% who work at a setting staffed for:			
40 or fewer hours per week	9	8	8
41-60 hours per week	31	18	24
61-80 hours per week	38	26	30
81-100 hours per week	11	20	16
> 100 hours per week	11	29	22
2000	(n = 513)	(n = 626)	(n = 1,139)
% who work at a setting that dispenses:			
100 or fewer prescriptions daily	24	12	18
101- 200 prescriptions daily	31	24	27
201- 300 prescriptions daily	19	25	22
301-400 prescriptions daily	10	11	10
> 400 prescriptions daily	16	28	23
% who work at a setting staffed for:			
40 or fewer hours per week	6	5	6
41-60 hours per week	34	16	24
61-80 hours per week	35	37	36
81-100 hours per week	15	21	18
> 100 hours per week	10	21	16

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." Full-time pharmacists worked more than 30 hours weekly in their primary employment setting. Management includes pharmacists who are owners/partners, managers, directors, supervisors and assistant managers.

Table 3.2.1: Pharmacy Staff Working with Full-time Pharmacists by Practice Setting (2004 and 2000)

% of pharmacists who typically work, during a majority of their workday, in close proximity with:	Independent	Chain	Mass Merchandiser	Super-market	Hospital	Other Patient Care	Other	Total
2004	(n = 124)	(n = 276)	(n = 45)	(n = 103)	(n = 264)	(n = 107)	(n = 13)	(n = 932)
≥ 1 pharmacist	48	48	60	39	87	82	54	63
≥ 1 intern	15	28	24	24	27	25	31	25
≥ 1 resident*	1	1	0	2	24	8	8	9
0 technicians	10	13	16	19	16	19	46	15
1 technician	22	20	18	28	8	13	8	17
2 technicians	36	27	27	29	13	10	23	22
3 technicians	19	19	22	13	11	9	8	15
> 3 technicians	14	22	18	11	53	47	15	31
0 clerks	29	53	56	72	74	62	54	59
1 clerk	29	26	37	19	11	12	23	20
2 clerks	23	15	4	5	11	15	0	13
> 2 clerks	19	7	4	4	5	11	23	8
≥ 1 health care practitioners (non-pharmacists)*	6	1	0	0	20	24	46	10
2000	(n = 193)	(n = 355)	(n = 101)	(n = 136)	(n = 197)	(n = 145)	(n = 12)	(n = 1,139)
≥ 1 pharmacist	46	46	65	51	84	83	92	60
≥ 1 intern	12	13	11	10	16	19	17	14
0 technicians	24	13	5	24	7	10	8	14
1 technician	33	30	27	24	13	17	17	25

2 technicians	28	33	40	31	19	18	25	28
3 technicians	9	15	16	13	21	10	0	14
> 3 technicians	16	9	12	8	40	45	50	19
0 clerks	44	48	35	66	71	55	50	53
1 clerk	33	32	36	26	15	17	25	27
2 clerks	14	16	16	7	7	10	17	12
> 2 clerks	9	4	13	1	7	18	8	8

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." 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. It primarily includes industry, academia, managed care administrators, and government.

* Information not collected in 2000.

Table 3.2.2: Pharmacy Staff Working with Full-time Pharmacists by Gender (2004 and 2000)

% of pharmacists who typically work, during a majority of their workday, in close proximity with:	Male	Female	Total
2004	(n = 525)	(n = 407)	(n = 932)
≥ 1 pharmacist	60	66	63
≥ 1 intern	24	27	25
≥ 1 resident*	6	11	9
0 technicians	15	15	15
1 technician	16	18	17
2 technicians	25	18	22
3 technicians	14	16	15
> 3 technicians	30	33	31
0 clerks	56	62	59
1 clerk	21	19	20
2 clerks	14	11	13
> 2 clerks	9	8	8
≥ 1 health care practitioners (non-pharmacists)*	9	11	10
2000	(n = 692)	(n = 447)	(n = 1,139)
≥ 1 pharmacist	58	64	60
≥ 1 intern	13	15	14
0 technicians	14	14	14
1 technician	28	21	25
2 technicians	27	30	28
3 technicians	14	14	14
> 3 technicians	17	21	19
0 clerks	52	55	53
1 clerk	27	25	27
2 clerks	13	11	12
> 2 clerks	8	9	8

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." Full-time pharmacists worked more than 30 hours weekly in their primary employment setting.
* Information not collected in 2000.

Table 3.2.3: Pharmacy Staff Working with Full-time Pharmacists by Position (2004 and 2000)

% of pharmacists who typically work, during a majority of their workday, in close proximity with:	Management	Staff	Total
2004	(n = 367)	(n = 567)	(n = 934)
≥ 1 pharmacist	56	67	63
≥ 1 intern	22	27	25
≥ 1 resident*	5	11	9
0 technicians	12	17	15
1 technician	20	15	17
2 technicians	23	21	22
3 technicians	18	13	15
> 3 technicians	27	34	31
0 clerks	51	64	59
1 clerk	23	18	20
2 clerks	16	11	13
> 2 clerks	10	7	8
≥ 1 health care practitioners (non-pharmacists)*	8	12	10
2000	(n = 513)	(n = 626)	(n = 1,139)
≥ 1 pharmacist	55	65	60
≥ 1 intern	16	11	14
0 technicians	15	13	14
1 technician	26	24	25
2 technicians	30	27	28
3 technicians	13	14	14
> 3 technicians	16	22	19
0 clerks	53	53	53
1 clerk	29	25	27
2 clerks	11	13	12
> 2 clerks	7	9	8

* Information not collected in 2000.

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." Full-time pharmacists worked more than 30 hours weekly in their primary employment setting. Management includes pharmacists who are owners/partners, managers, directors, supervisors and assistant managers.

Table 3.3.1: Equipment in Practice Setting Reported by Actively Practicing Pharmacists

Equipment Type (% of pharmacists whose site uses each equipment type)	**Independent** (n = 78)	**Chain** (n = 140)	**Mass Merchandiser** (n = 21)	**Supermarket** (n = 37)	**Hospital** (n = 93)	**Other Patient Care** (n = 46) [1]	**Total** (n = 415)
Dispensing							
Automated dispensing system	9	26	19	8	48	33	27
Automated patient refill request system	13	76	57	62	24	26	45
Bar coding for prescriptions	19	61	43	54	28	28	41
Electronic Rx order system	10	40	14	22	24	15	25
Tablet/capsule counter	28	50	14	32	22	40	35
IV prep hood	14	4	5	0	80	52	28
Patient Care							
Blood glucose monitor	35	18	10	22	22	22	22
Blood pressure cuff	51	51	67	87	12	15	42
Bone density scanner	3	0	5	11	3	4	3
Cholesterol meter	5	1	0	14	5	9	5
Peak flow meter	13	4	5	3	8	9	7
Stethoscope	19	2	0	8	11	11	9
TPN/IV admixture	6	1	0	0	57	35	18
Video equipment	14	4	5	5	26	13	12

Note: Results based on respondents to the workplace supplement. Actively practicing is defined as a licensed pharmacist who is working full-time or part-time 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.

[1] N = 47 for tablet/capsule counter

Table 3.3.2: Information Technology in Practice Setting Reported by Actively Practicing Pharmacists

Information Technology (% of pharmacists whose site uses each type of information technology)	**Independent**	**Chain**	**Mass Merchandiser**	**Supermarket**	**Hospital**	**Other Patient Care**	**Total**
	(n = 78)	(n = 139)	(n = 22)	(n = 37)	(n = 93)	(n = 46)	(n = 415)
Internet Access	78	63	46	81	95	87	76
Drug Information Software	59	60	77	57	81	59	65
Drug Information URLs	45	32	32	46	73	50	47
Patient Education/Information Center or Kiosk	34	30	14	16	32	20	28
Pharmaceutical Care Profile/Documentation System	38	45	52	43	66	56	50
Automated patient refill reminder system	5	47	18	16	8	20	23
Pharmacy-based web site	23	66	77	68	10	39	43

Note: Results based on respondents to the workplace supplement. Actively practicing is defined as a licensed pharmacist who is working full-time or part-time 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.

Table 3.3.3: Impact of Technology on Practice Reported by Actively Practicing Pharmacists by Practice Setting

Impact of technology (% of pharmacists reporting:)	**Independent**	**Chain**	**Mass Merchandiser**	**Supermarket**	**Hospital**	**Other Patient Care**	**Total**
	(n = 75)	(n = 137)	(n = 21)	(n = 36)	(n = 92)	(n = 46)	(n = 407)
*Increased level of productivity	68	72	57	49	53	61	63
*Increased amount of time spent with patients	45	42	38	39	15	17	33
*Increased quality of care	53	64	52	44	69	67	61
*Increased financial performance of the pharmacy	49	60	30	46	45	60	52
*Increased level of job satisfaction	501	58	52	47	47	37	51
Demands on RPh time in the pharmacy Incr / decr	23 / 15	26 / 27	48 / 10	17 / 14	46 / 13	22 / 20	30 / 19
Amount of time spent on dispensing Incr / decr	13 / 28	21 / 32	24 / 33	17 / 31	25 / 24	18 / 20	20 / 28

*Generally, less than 10% reported 1 or 2 i.e., a decrease

Note: Results based on respondents to the workplace supplement. Actively practicing is defined as a licensed pharmacist who is working full-time or part-time 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.
Impact of technology on each aspect was measured using a 5-point scale: 1= Decreased very much, 2= Decreased, 3= Neither decreased nor increased, 4= Increased, 5= Increased very much. A response of 1 or 2 was defined as "reporting a decrease", and a response of 4 or 5 was defined as "reporting an increase". Very few respondents reported either of the 2 extremes i.e., 1 or 5 (generally less than 10%).

Table 3.4.1: Services Offered in Practice Site Reported by Actively Practicing Pharmacists

Type of Service (% of pharmacists whose site offers each type of service)	**Independent**	**Chain**	**Mass Merchandiser**	**Super market**	**Hospital**	**Other Patient Care**	**Total**
	(n = 78)	(n = 137)	(n = 21)	(n = 37)	(n = 93)	(n = 46)	(n = 407)
General/simple compounding	89	87	86	92	77	74	84
Specialty/complex compounding	36	5	0	8	27	37	20
Drug Information Service	73	64	52	65	63	63	65
Durable Medical Equipment	63	15	10	14	10	17	23
Home Infusion	9	1	0	0	7	33	7
Immunization	10	11	10	43	16	13	15
Health screening	18	7	10	27	12	7	12
Smoking cessation	17	10	14	22	25	13	16
Mailed refill reminders	3	15	24	19	1	4	9
Medication therapy management services	10	9	5	5	20	24	13
Nutritional support	9	3	0	3	45	30	17
Pharmacy newsletter	6	12	0	11	38	20	17
Pharmacokinetic dosing	3	0	0	0	73	37	21
Veterinary pharmacy	23	2	5	3	1	7	7
Wellness screening	8	3	5	11	10	9	7
Other Services	14	6	10	5	9	13	9

Note: Results based on respondents to the workplace supplement. Actively practicing is defined as a licensed pharmacist who is working full-time or part-time 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.

Table 3.4.2: Disease State Management Programs Offered in Practice Site Reported by Actively Practicing Pharmacists

Type of Disease State Management (% of pharmacists whose site offers each type of disease state management service)	**Independent**	**Chain**	**Mass Merchandiser**	**Super market**	**Hospital**	**Other Patient Care**	**Total**
	(n = 78)	(n = 137)	(n = 21)	(n = 37)	(n = 93)	(n = 46)	(n = 407)
Anticoagulation	3	2	0	0	46	13	13
Diabetes	22	9	0	14	34	22	19
Dyslipidemia	3	3	0	14	19	15	9
Hypertension	12	5	5	11	19	17	11
Asthma/COPD	12	2	0	5	19	20	10
Osteoporosis	4	2	0	5	13	11	6
Pain	6	2	0	0	24	9	8
Weight	3	1	0	3	11	7	4
Other	4	1	0	0	5	7	3

Note: Results based on respondents to the workplace supplement. Actively practicing is defined as a licensed pharmacist who is working full-time or part-time 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.

Table 3.4.3: Payment for Non-dispensing Patient Services Reported by Actively Practicing Pharmacists

	Independent	Chain	Mass Merchandiser	Supermarket	Hospital	Other Patient Care	Total
	(n = 74)	(n = 119)	(n = 19)	(n = 36)	(n = 82)	(n = 42)	(n = 381)
% of pharmacists whose site is being paid for non-dispensing services	14	7	0	19	16	26	13

Note: Results based on respondents to the workplace supplement. Actively practicing is defined as a licensed pharmacist who is working full-time or part-time 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.

Table 3.4.4: Characteristics of Practice Site (Entrepreneurial Orientation) Reported by Actively Practicing Pharmacists

	Independent	Chain	Mass Merchandiser	Supermarket	Hospital	Other Patient Care	Total
	(n = 77)	(n = 132)	(n = 22)	(n= 36)	(n= 93)	(n = 45)	(n = 405)
Autonomy	10.5	8.9	8.7	9.2	8.8	9.6	9.3)
Proactiveness	10.7	10.3	10.3	10.5	9.4	10.6	10.2
Innovativeness	9.8	9.9	8.3	9.0	9.5	10.4	9.6
Competitive Aggressiveness	9.0	10.3	10.5	9.6	8.3	9.6	9.5
Work Ethic	12.4	11.3	11.1	11.1	10.2	11.4	11.2
Risk Taking	8.9	8.4	8.2	7.9	7.9	8.5	8.3

Note: Results based on respondents to the workplace supplement. Actively practicing is defined as a licensed pharmacist who is working full-time or part-time 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.

Numbers in cells are means of the summed scores for each three-item construct. Mean score based on scale 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Agree, 4 = Agree, 5 = Strongly Agree. Each characteristic score is the sum of three items. See Appendix A for the definition of each construct, the items used to measure each construct, and the source of the items.

Table 3.4.5: Adequacy of Resources in Work Site for Pharmacy/Pharmacist Services Reported by Actively Practicing Pharmacists

	Independent	Chain	Mass Merchandiser	Supermarket	Hospital	Other Patient Care	Total
	(n = 75)	(n = 135)	(n = 22)	(n = 36)	(n = 90)	(n = 45)	(n = 403)
Skills to provide services	3.5	3.2	2.7	3.2	3.3	3.5	3.3
Financial resources to implement new services	3.1	3.0	2.6	2.7	2.3	3.0	2.8
Expertise to develop new services	3.1	2.9	2.5	2.6	2.9	3.0	2.9
Staffing levels to provide new services	2.9	2.3	2.0	2.3	2.1	2.7	2.4
Resources to obtain payment for services	2.6	2.6	2.0	2.3	2.2	2.7	2.4
Skills to market services	2.6	2.8	2.5	2.4	2.5	3.0	2.7

Note: Results based on respondents to the workplace supplement. Actively practicing is defined as a licensed pharmacist who is working full-time or part-time 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. See Appendix A for the source of the items.
Numbers in cells are means for the items based on scale: 1 = poor, 2 = fair, 3 = good, 4 = very good, 5 = excellent.

Table 3.4.6: Amount of Change to Be Able to Provide Innovative Pharmacy/Pharmacist Services Reported by Actively Practicing Pharmacists

Amount of Change {% of pharmacists reporting how much (none/a lot) their site has changed each item in the past two years}	**Independent** (n = 76)	**Chain** (n = 136)	**Mass Merchandiser** (n = 22)	**Super-market** (n = 35)	**Hospital** (n = 88)	**Other Patient Care** (n = 43)	**Total** (n = 400)
The information collected about patients	24/15	20/27	27/9	43/9	21/33	23/28	24/24
The system for documenting patient care	32/24	24/26	27/36	39/17	16/46	26/35	25/31
The skills and knowledge of our pharmacists	13/28	13/21	27/14	22/11	16/25	19/23	16/22
Responsibilities and activities of pharmacy technicians	18/30	12/42	23/36	17/25	22/30	21/36	18/35
Staffing patterns in the pharmacy	29/17	31/21	36/23	47/3	29/24	32/20	32/19
Layout and workflow of the pharmacy	30/33	33/35	46/23	39/6	47/28	24/37	36/30
Marketing activities	40/11	32/14	55/9	42/6	80/2	31/21	46/11
Interactions with physicians	38/11	42/7	73/0	58/3	22/21	37/19	40/11
Asking patients to pay for pharmacy services	76/7	84/2	100/0	83/0	88/0	78/5	84/3
Drug information access	27/20	33/13	46/5	39/17	28/29	27/14	31/18
Financial incentives for pharmacists	58/8	51/5	55/9	39/6	67/7	61/9	56/7
Collection of patient lab data	88/4	90/1	91/0	91/0	31/27	57/7	73/8

Note: Results based on respondents to the workplace supplement. Actively practicing is defined as a licensed pharmacist who is working full-time or part-time 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.
Amount of change in the pharmacy was measured on a 3-point scale of None, A Little, and A Lot.

Table 3.5.1: Prescriptions Personally Dispensed by Full-time Pharmacists by Practice Setting (2004 and 2000)

	Indepen-dent	Chain	Mass Merchandiser	Super-market	Hospital	Other Patient Care	Other	Total
2004	(n = 124)	(n = 276)	(n = 45)	(n = 103)	(n = 264)	(n = 107)	(n = 13)	(n = 932)
% who personally dispense:								
80 or fewer prescriptions daily	30	13	31	30		40		30
81-120 prescriptions daily	20	20	20	32	*	7	*	19
121-160 prescriptions daily	27	20	20	20		8		17
161-200 prescriptions daily	17	24	18	12		20		19
> 200 prescriptions daily	7	22	11	7		26		17
2000	(n = 193)	(n = 355)	(n = 101)	(n = 136)	(n = 197)	(n = 145)	(n = 12)	(n =1,139)
% who personally dispense:								
80 or fewer prescriptions daily	34	22	20	42		39		33
81-120 prescriptions daily	25	25	29	30	*	20	*	23
121-160 prescriptions daily	23	27	23	21		12		21
161-200 prescriptions daily	10	13	21	3		9		11
> 200 prescriptions daily	8	13	8	4		20		12

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." 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. It primarily includes industry, academia, managed care administrators, and government.

* These cells are empty because the row variables are not applicable to the respective practice settings.

Table 3.5.2: Prescriptions Personally Dispensed by Full-time Pharmacists by Gender (2004 and 2000)

	Male	Female	Total
2004	(n = 525)	(n = 407)	(n = 932)
% who personally dispense:			
80 or fewer prescriptions daily	29	30	30
81-120 prescriptions daily	18	20	19
121-160 prescriptions daily	17	15	17
161-200 prescriptions daily	18	20	19
> 200 prescriptions daily	17	15	17
2000	(n = 692)	(n = 447)	(n = 1,139)
% who personally dispense:			
80 or fewer prescriptions daily	33	32	33
81-120 prescriptions daily	23	22	23
121-160 prescriptions daily	20	24	21
161-200 prescriptions daily	12	10	11
> 200 prescriptions daily	12	12	12

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." Full-time pharmacists worked more than 30 hours weekly in their primary employment setting.

Table 3.5.3: Prescriptions Personally Dispensed by Full-time Pharmacists by Position (2004 and 2000)

	Management	Staff	Total
2004	(n = 367)	(n = 567)	(n = 934)
% who personally dispense:			
80 or fewer prescriptions daily	34	27	30
81-120 prescriptions daily	22	17	19
121-160 prescriptions daily	17	16	17
161-200 prescriptions daily	15	21	19
> 200 prescriptions daily	12	19	16
2000	(n = 513)	(n = 626)	(n = 1,139)
% who personally dispense:			
80 or fewer prescriptions daily	37	29	33
81-120 prescriptions daily	23	23	23
121-160 prescriptions daily	19	24	21
161-200 prescriptions daily	10	12	11
> 200 prescriptions daily	11	12	12

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." Full-time pharmacists worked more than 30 hours weekly in their primary employment setting. Management includes pharmacists who are owners/partners, managers, directors, supervisors and assistant managers.

Table 3.6.1: Selected Patient Care Activities for Pharmacists Working Full-time by Practice Setting

2004	Indepen-dent (n = 124)	Chain (n = 276)	Mass Merchandiser (n = 45)	Super-market (n = 103)	Hospital (n = 264)	Other Patient Care (n = 107)	Other (n = 13)	Total (n = 932)
% who personally serve								
≤10 patients daily	12	7	7	6	60	55	44	27
11-30 patients daily	31	31	31	35	18	23	44	27
31-50 patients daily	29	28	28	25	9	10	0	21
> 50 patients daily	28	34	34	34	12	12	11	25
% who evaluate ≥1 drug level daily	32	28	20	27	62	36	31	38
% who personally review ≥1 patient chart daily	36	23	18	28	65	45	31	40
% who consult with:								
0 health practitioners daily	15	17	17	19	15	26	31	18
1 – 5 health care practitioners daily	40	30	40	30	45	27	23	36
6 – 10 health care practitioners daily	20	26	27	27	25	27	31	25
> 10 health practitioners daily	24	26	16	23	16	20	15	21

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. 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. It primarily includes industry, academia, managed care administrators, and government.

Table 3.6.2: Selected Patient Care Activities for Pharmacists Working Full-time by Gender

	Male	Female	Total
	(n = 525)	(n = 407)	(n = 932)
% who personally serve			
≤ 10 patients daily	25	30	27
11-30 patients daily	27	28	27
31-50 patients daily	22	19	21
> 50 patients daily	26	23	25
% who evaluate ≥ 1 drug level daily	40	37	38
% who personally review ≥ 1 patient chart daily	39	40	40
% who consult with:			
0 health practitioners daily	19	17	18
1 – 5 health care practitioners daily	38	33	36
6 – 10 health care practitioners daily	23	28	25
> 10 health practitioners daily	20	22	21

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Full-time pharmacists worked more than 30 hours weekly in their primary employment setting.

Table 3.6.3: Selected Patient Care Activities for Pharmacists Working Full-time by Position

	Management	Staff	Total
	(n = 302)	(n = 567)	(n = 934)
% who personally serve			
≤ 10 patients daily	24	30	28
11-30 patients daily	26	28	27
31-50 patients daily	23	19	21
> 50 patients daily	28	23	25
% who evaluate ≥ 1 drug level daily	33	43	39
% who personally review ≥ 1 patient chart daily	35	43	40
% who consult with:			
0 health practitioners daily	19	18	18
1 – 5 health care practitioners daily	38	35	36
6 – 10 health care practitioners daily	27	24	25
> 10 health practitioners daily	18	24	21

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Full-time pharmacists worked more than 30 hours weekly in their primary employment setting. Management includes pharmacists who are owners/partners, managers, directors, supervisors and assistant managers.

Table 3.7.1: Actively Practicing Pharmacists' Frequency of Daily Interactions with Others and Media by Practice Setting

Interaction Type	Independent	Chain	Mass Merchandiser	Supermarket	Hospital	Other Patient Care	Total
	(n = 72)	(n = 126)	(n = 20)	(n = 33)	(n = 79)	(n = 35)	(n = 370)
Patients/Caregivers							
Face-to-face	47.2	51.8	51.0	44.8	12.9	19.8	38.9
Via telephone	29.8	28.8	24.3	27.5	4.2	17.2	22.4
Via fax	2.8	2.9	2.9	1.2	0.1	6.9	2.6
Via email	0.2	0.4	0.4	0.3	1.3	0.2	0.5
Prescribers							
Face-to-face	1.6	1.4	1.0	0.2	4.0	2.3	2.1
Via telephone	12.8	14.1	10.6	11.1	5.3	8.9	10.8
Via fax	13.0	18.0	14.4	17.7	12.3	7.5	14.3
Via email	0.2	0.2	0.8	0	0.8	0.4	0.6
Nurses							
Face-to-face	1.3	1.2	0.4	0	10.1	4.6	4.0
Via telephone	15.3	20.8	17.2	18.7	19.9	11.0	17.9
Via fax	7.5	13.4	12.6	7.7	11.1	6.8	10.1
Via email	0.0	0.2	0.6	0	4.0	2.6	1.3
Pharmacists							
Face-to-face	0.2	0.3	0.2	0.2	3.2	2.9	1.3
Via telephone	3.1	6.5	5.4	7.5	2.6	3.1	4.7
Via fax	0.4	1.0	0.4	0.2	0.4	0.4	0.5
Via email	0	0.2	2.5	0.5	1.1	1.2	0.6
Third party payers							
Face-to-face	0.1	0.2	0	5.7	0	0	0.6
Via telephone	8.8	12.1	7.3	10.2	0	2.1	8.0
Via fax	0.3	0.9	0	0.8	0.1	1.7	0.6
Via email	0.1	0.1	0	0.5	0	0	0.1

Note: Amounts shown are average number of interactions daily reported by respondents. Results based on respondents to the workplace supplement. Actively practicing is defined as a licensed pharmacist who is working full-time or part-time 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.
Total not adjusted to remove industry and other non-practice respondents. Table also excludes interactions with other health professionals.

Table 3.7.2: Actively Practicing Pharmacists' Frequency of Daily Interactions with Others and Media by Position

Interaction Type	Management	Staff	Total
	(n = 120)	(n = 250)	(n = 370)
Patients/Caregivers			
Face-to-face	47.5	34.7	38.9
Via telephone	28.0	19.7	22.4
Via fax	3.3	2.2	2.6
Via email	0.4	0.5	0.5
Prescribers			
Face-to-face	1.7	2.3	2.1
Via telephone	12.3	10.1	10.8
Via fax	12.5	15.2	14.3
Via email	0.7	0.6	0.6
Nurses			
Face-to-face	3.3	4.3	4.0
Via telephone	16.5	18.5	17.9
Via fax	6.5	11.9	10.1
Via email	2.5	0.7	1.3
Pharmacists			
Face-to-face	1.0	1.5	1.3
Via telephone	5.0	4.5	4.6
Via fax	0.4	0.6	0.5
Via email	1.1	0.4	0.6
Third party payers			
Face-to-face	0.5	0.7	0.6
Via telephone	8.7	7.6	8.0
Via fax	0.7	0.6	0.6
Via email	0.1	0.1	0.1

Note: Amounts shown are average number of interactions daily reported by respondents. Results based on respondents to the workplace supplement. Actively practicing is defined as a licensed pharmacist who is working full-time or part-time in their primary employment setting. Table excludes interactions with other health professionals.

Table 3.8.1: Actual Work Activities for Pharmacists Working Full-time by Practice Setting

Actual amount of time spent in: (% of day; mean +/- s.d)	Independent	Chain	Mass Merchandiser	Super-market	Hospital	Other Patient Care	Other	Total
2004	(n = 124)	(n = 276)	(n = 45)	(n = 103)	(n = 264)	(n = 107)	(n = 13)	(n = 932)
Consultation	19 +/- 13	18 +/- 13	23 +/- 16	20 +/- 13	18 +/- 18	23 +/- 23	23 +/- 21	19 +/- 16
Drug Use Management	8 +/- 10	9 +/- 10	9 +/- 7	8 +/- 8	20 +/- 20	16 +/- 20	15 +/- 12	13 +/- 15
Business Management	16 +/- 15	16 +/- 15	15 +/- 11	14 +/-12	17 +/- 28	12 +/- 22	16 +/- 26	16 +/- 20
Medication Dispensing	56 +/- 23	54 +/- 22	53 +/- 22	55 +/- 22	37 +/- 31	45 +/-32	26 +/- 31	49 +/- 27
Other Activities	1 +/- 3	3 +/- 7	1 +/- 2	3 +/- 12	5 +/- 10	4 +/-9	20 +/- 23	4 +/- 9
2000	(n = 193)	(n = 355)	(n = 101)	(n = 136)	(n = 197)	(n = 145)	(n = 12)	(n= 1,139)
Consultation	19 +/- 13	19 +/- 12	20 +/- 14	19 +/- 12	19 +/- 15	20 +/- 17	25 +/- 15	19 +/- 14
Drug Use Management	8 +/- 7	9 +/- 9	9 +/- 8	8 +/- 8	17 +/- 15	14 +/- 17	13 +/- 13	11 +/- 12
Business Management	18 +/- 14	15 +/- 13	16 +/- 14	17 +/- 13	18 +/- 27	21 +/- 26	17 +/- 20	17 +/- 17
Medication Dispensing	55 +/- 21	57 +/- 22	55 +/- 23	56 +/- 20	46 +/- 29	45 +/- 28	45 +/- 23	53 +/- 24
Other Activities*								

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." 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. It primarily includes industry, academia, managed care administrators, and government.

*We did not include the category "Other Activities" in the 2000 survey instrument.

Table 3.8.2: Desired Work Activities for Pharmacists Working Full-time by Practice Setting

Desired amount of time spent in: (% of day; mean +/- s.d)	Independent	Chain	Mass Merchandiser	Super-market	Hospital	Other Patient Care	Other	Total
2004	(n = 124)	(n = 276)	(n = 45)	(n = 103)	(n = 264)	(n = 107)	(n = 13)	(n = 932)
Consultation	29 +/- 16	31 +/- 17	34 +/- 17	33 +/- 16	24 +/- 18	25 +/- 18	22 +/- 16	28 +/-18
Drug Use Management	15 +/- 13	17 +/- 12	20 +/- 12	17 +/- 14	26 +/- 19	21 +/- 20	23 +/- 11	20 +/- 16
Business Management	11 +/- 12	12 +/-16	10 +/- 13	7 +/- 6	16 +/- 26	14 +/- 24	16 +/- 23	13 +/- 19
Medication Dispensing	40 +/- 23	35 +/- 23	33 +/- 18	37 +/- 23	25 +/- 25	34 +/- 27	16 +/- 21	33 +/- 25
Other Activities	4 +/- 9	6 +/- 10	3 +/- 8	6 +/- 14	8 +/- 12	6 +/- 11	23 +/- 24	6 +/-11
2000	(n = 193)	(n = 355)	(n = 101)	(n = 136)	(n = 197)	(n = 145)	(n = 12)	(n= 1,139)
Consultation	32 +/- 17	35 +/- 16	38 +/- 16	34 +/- 16	30 +/- 18	29 +/- 18	31 +/- 10	33 +/- 17
Drug Use Management	16 +/- 11	21 +/- 14	21 +/- 12	19 +/- 14	27 +/- 18	21 +/- 17	21 +/- 16	21 +/- 15
Business Management	12 +/- 12	8 +/- 9	8 +/- 9	9 +/- 9	17 +/- 27	19 +/- 26	13 +/- 16	12 +/- 17
Medication Dispensing	41 +/- 23	36 +/- 22	33 +/- 21	38 +/- 21	26 +/- 22	31 +/- 24	36 +/- 21	34 +/- 23
Other Activities*								

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." 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. It primarily includes industry, academia, managed care administrators, and government.

*We did not include the category "Other Activities" in the 2000 survey instrument.

Table 3.8.3: Difference in Actual and Desired Work Activities for Pharmacists Working Full-time by Practice Setting

"Actual" minus "Desired" ( ) signifies a negative difference	Independent	Chain	Mass Merchandiser	Super-market	Hospital	Other Patient Care	Other	Total
2004	(n = 124)	(n = 276)	(n = 45)	(n = 103)	(n = 264)	(n = 107)	(n = 13)	(n = 932)
Consultation	(10)	(13)	(11)	(13)	(6)	(2)	1	(9)
Drug Use Management	(7)	(8)	(11)	(9)	(6)	(5)	(8)	(7)
Business Management	5	4	5	7	1	(2)	0	3
Medication Dispensing	16	19	20	18	12	11	10	16
Other Activities	(3)	(3)	(2)	(3)	(3)	(2)	(3)	(2)
2000	(n = 193)	(n = 355)	(n = 101)	(n = 136)	(n = 197)	(n = 145)	(n = 12)	(n= 1,139)
Consultation	(11)	(16)	(18)	(15)	(11)	(9)	(6)	(14)
Drug Use Management	(8)	(12)	(12)	(11)	(10)	(7)	(8)	(10)
Business Management	6	7	8	8	1	2	4	5
Medication Dispensing	14	21	22	18	20	14	9	19
Other Activities*								

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." 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. It primarily includes industry, academia, managed care administrators, and government.

*We did not include the category "Other Activities" in the 2000 survey instrument.

Table 3.8.4: Actual Work Activities for Pharmacists Working Full-time by Gender

Actual amount of time spent in: (% of day; mean +/- s.d)	Male	Female	Total
2004	(n = 525)	(n = 407)	(n = 932)
Consultation	17 +/- 14	22 +/- 18	19 +/- 16
Drug Use Management	11 +/- 14	15 +/- 16	13 +/- 15
Business Management	17 +/- 21	13 +/- 18	16 +/- 20
Medication Dispensing	51 +/- 27	46 +/-28	49 +/- 27
Other Activities	3 +/- 9	4 +/- 9	4 +/- 9
2000	(n = 692)	(n = 447)	(n= 1,139)
Consultation	17 +/- 12	23 +/- 15	19 +/- 14
Drug Use Management	10 +/- 11	12 +/- 13	11 +/- 12
Business Management	18 +/- 20	15 +/- 17	17 +/- 17
Medication Dispensing	55 +/- 24	50 +/- 23	53 +/- 24
Other Activities*			

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." Full-time pharmacists worked more than 30 hours weekly in their primary employment setting.

*We did not include the category "Other Activities" in the 2000 survey instrument.

Table 3.8.5: Desired Work Activities for Pharmacists Working Full-time by Gender

Desired amount of time spent in: (% of day; mean +/- s.d)	Male	Female	Total
2004	(n = 525)	(n = 407)	(n = 932)
Consultation	28 +/- 17	29 +/- 17	28 +/-18
Drug Use Management	18 +/- 15	22 +/- 17	20 +/- 16
Business Management	14 +/- 20	11 +/-18	13 +/- 19
Medication Dispensing	35 +/-25	30 +/-23	33 +/- 25
Other Activities	6 +/- 11	7 +/- 12	6 +/-11
2000	(n = 692)	(n = 447)	(n= 1,139)
Consultation	31 +/- 17	35 +/- 17	33 +/- 17
Drug Use Management	20 +/- 15	23 +/- 15	21 +/- 15
Business Management	13 +/- 19	9 +/- 15	12 +/- 17
Medication Dispensing	36 +/- 23	32 +/- 21	34 +/- 23
Other Activities*			

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." Full-time pharmacists worked more than 30 hours weekly in their primary employment setting.

*We did not include the category "Other Activities" in the 2000 survey instrument.

Table 3.8.6: Difference in Actual and Desired Work Activities for Pharmacists Working Full-time by Gender

"Actual" minus "Desired" ( ) signifies a negative difference	Male	Female	Total
2004	(n = 525)	(n = 407)	(n = 932)
Consultation	(11)	(7)	(9)
Drug Use Management	(7)	(7)	(7)
Business Management	3	2	3
Medication Dispensing	16	16	16
Other Activities	(3)	(3)	(2)
2000	(n = 692)	(n = 447)	(n= 1,139)
Consultation	(14)	(12)	(14)
Drug Use Management	(10)	(9)	(10)
Business Management	5	6	5
Medication Dispensing	19	18	19
Other Activities*			

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." Full-time pharmacists worked more than 30 hours weekly in their primary employment setting.

*We did not include the category "Other Activities" in the 2000 survey instrument.

Table 3.8.7: Actual Work Activities for Pharmacists Working Full-time by Position

Actual amount of time spent in: (% of day; mean +/- s.d)	Management	Staff	Total
2004	(n = 302)	(n = 567)	(n = 934)
Consultation	17 +/- 14	21 +/- 17	19 +/- 16
Drug Use Management	10 +/- 12	15 +/- 17	13 +/- 15
Business Management	26 +/- 25	9 +/-13	16 +/- 20
Medication Dispensing	44 +/- 25	52 +/- 28	49 +/- 27
Other Activities	3 +/- 9	4 +/- 9	4 +/- 9
2000	(n = 513)	(n = 626)	(n =1,139)
Consultation	18 +/- 13	20 +/- 14	19 +/- 14
Drug Use Management	9 +/- 9	12 +/- 13	11 +/- 12
Business Management	24 +/- 22	11 +/-13	17 +/- 17
Medication Dispensing	49 +/- 25	57 +/- 22	53 +/- 24
Other Activities*			

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." Full-time pharmacists worked more than 30 hours weekly in their primary employment setting. Management includes pharmacists who are owners/partners, managers, directors, supervisors and assistant managers.

*We did not include the category "Other Activities" in the 2000 survey instrument.

Table 3.8.8: Desired Work Activities for Pharmacists Working Full-time by Position

Desired amount of time spent in: (% of day; mean +/- s.d)	Management	Staff	Total
2004	(n = 302)	(n = 567)	(n = 934)
Consultation	28 +/- 18	29 +/- 18	28 +/-18
Drug Use Management	17 +/-13	22 +/- 17	20 +/- 16
Business Management	22 +/- 24	7 +/- 13	13 +/- 19
Medication Dispensing	28 +/- 22	35 +/- 26	33 +/- 25
Other Activities	5 +/- 11	7 +/- 12	6 +/-11
2000	(n = 513)	(n = 626)	(n =1,139)
Consultation	31 +/- 17	34 +/- 16	33 +/- 17
Drug Use Management	19 +/-14	23 +/- 15	21 +/- 15
Business Management	19 +/- 22	6 +/- 10	12 +/- 17
Medication Dispensing	31 +/- 22	37 +/- 23	34 +/- 23
Other Activities*			

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." Full-time pharmacists worked more than 30 hours weekly in their primary employment setting. Management includes pharmacists who are owners/partners, managers, directors, supervisors and assistant managers.

*We did not include the category "Other Activities" in the 2000 survey instrument.

Table 3.8.9: Difference in Actual and Desired Work Activities for Pharmacists Working Full-time by Position

"Actual" minus "Desired" ( ) signifies a negative difference	Management	Staff	Total
2004	(n = 302)	(n = 567)	(n = 934)
Consultation	(11)	(8)	(9)
Drug Use Management	(7)	(7)	(7)
Business Management	4	2	3
Medication Dispensing	15	17	16
Other Activities	(3)	(3)	(2)
2000	(n = 513)	(n = 626)	(n =1,139)
Consultation	(13)	(14)	(14)
Drug Use Management	(10)	(11)	(10)
Business Management	5	5	5
Medication Dispensing	17	20	19
Other Activities*			

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." Full-time pharmacists worked more than 30 hours weekly in their primary employment setting. Management includes pharmacists who are owners/partners, managers, directors, supervisors and assistant managers

*We did not include the category "Other Activities" in the 2000 survey instrument.

Table 3.9.1: Ratings of Workload by Pharmacists Working Full-time by Practice Setting

	Independent	Chain	Mass Merchandiser	Super-market	Hospital	Other Patient Care	Other	Total
	(n = 124)	(n = 276)	(n = 45)	(n = 103)	(n = 264)	(n = 107)	(n = 13)	(n = 932)
% who rate workload level at their pharmacy as high or excessively high	43	59	42	35	61	56	58	54
% who report that workload has increased or greatly increased compared to a year ago	48	57	49	46	64	67	75	58

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. 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. It primarily includes industry, academia, managed care administrators, and government.

Table 3.9.2: Ratings of Workload by Pharmacists Working Full-time by Gender

	Male	Female	Total
	(n = 525)	(n = 407)	(n = 932)
% who rate workload level at their pharmacy as high or excessively high	54	53	54
% who report that workload has increased or greatly increased compared to a year ago	55	61	58

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Full-time pharmacists worked more than 30 hours weekly in their primary employment setting.

Table 3.9.3: Ratings of Workload by Pharmacists Working Full-time by Position

	Management	Staff	Total
	(n = 367)	(n = 567)	(n = 934)
% who rate workload level at their pharmacy as high or excessively high	52	55	54
% who report that workload has increased or greatly increased compared to a year ago	61	56	58

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Full-time pharmacists worked more than 30 hours weekly in their primary employment setting. Management includes pharmacists who are owners/partners, managers, directors, supervisors and assistant managers.

Section Four: Pharmacists' Reaction to Their Work

4.1 Work Attitudes

The quality of worklife supplement included scales and items to measure pharmacists' attitudes about their roles, conflict, satisfaction, and commitment. (See Appendix A for definitions and items used to measure constructs.) Responses for full-time practicing pharmacists are reported in the tables and highlighted in this section of the report. The tables include data for both the 2004 and the 2000 workforce survey for comparison. In general, attitudes in 2004 were better than in 2000.

Tables 4.1.1 through 4.1.4 summarize work attitude responses for pharmacists categorized by practice setting, gender, position, and years of experience. Each table shows the percent of pharmacist respondents that had scores above the midpoint of the summated scale measures (high levels) for role conflict, role overload, role ambiguity, work-home conflict, job satisfaction, and organizational and career commitment. In 2004, over two-thirds of pharmacists overall reported high levels of role overload, with chain and hospital settings having the highest percents of pharmacists with higher ratings (Table 4.1.1). The overall rate of pharmacists reporting high scores on role conflict was relatively low (22%), but half of pharmacists in mass merchandiser settings had high scores. Except for pharmacists in supermarket pharmacy settings, work-home conflict was more problematic for pharmacists in community settings (45% to 59% reporting a high level). Job satisfaction, organizational commitment and career commitment were particularly high for the independent setting and lower in the mass merchandiser, chain and supermarket settings. The patterns of responses across settings were similar between 2000 and 2004, with improvement in attitudes generally in 2004.

Work attitudes of pharmacists categorized by gender and position are shown in Tables 4.1.2 and 4.1.3, respectively. In 2004, except for a slightly higher percentage of men having high levels (above midpoint scores) on the work-home conflict measure and the converse among women for career commitment, work attitudes across gender were similar. In 2000, the contrast between men and women revealed more differences; more women than men had high levels of work-home conflict, job satisfaction, organizational commitment, and career commitment. For the contrast of work attitudes by position, pharmacists in management positions had higher levels of job satisfaction, career commitment, and especially organizational commitment than staff in 2004, and theses ratings were improved over those in 2000. Similarly, both management and staff pharmacists had lower ratings on role conflict, role overload, role ambiguity, and work-home conflict in 2004 versus 2000.

Table 4.1.4 shows the work attitudes of pharmacists categorized by years of experience. In 2004, the work attitudes ratings of the least experienced group often were very similar to those in the most experienced group. Interestingly, pharmacists with more than 10 years of experience had lower levels of career commitment. Also the highest work-home conflict is found in the 21-30 year (45%) group.

4.2 Job Stress

In the quality of worklife supplement, pharmacists rated how stressful were different experiences in or aspects of their work environment. Tables 4.2.1 through 4.2.4 summarize the responses of full-time practicing pharmacists from both the 2004 and 2000 national workforce surveys. Additional stress items were included in the 2004 survey, thus a contrast on all measures between the two surveys is not possible. The findings reported in the tables focus on the percentages of pharmacists reporting experiences or aspects highly stressful. Typically, few pharmacists rated items as "not at all" stressful, those not rating items as highly stressful gave either "not too stressful" or "somewhat stressful" ratings.

In the 2004 survey responses, five items were rated as highly stressful by a third or more of all pharmacists (Table 4.2.1). Inadequate staffing (both technicians and pharmacists) and "being interrupted by phone calls or people" were the most highly rated stress generators and more chain, mass merchandiser and hospital pharmacists rated these items as highly stressful. Also, except for hospital and other patient care settings, not being staffed with an adequate number of technicians was more often reported as highly stressful than adequate staffing with pharmacists**.** Two items added in the 2004 survey, "dealing with difficult patients" and "having so much work to do that everything cannot be done well," were the other items rated highly stressful by a third of all pharmacists; pharmacists in chain, mass merchandiser, and supermarket pharmacy settings more often rated these items as highly stressful. The 2004 results were very similar to the findings in the 2000 survey; staffing and interruptions were the most common items reported as highly stressful. The slightly lower ratings for stress from inadequate staffing in 2004 may be due to having pharmacists report stress related to separate items for adequate pharmacist and technician staffing in 2004 rather than a combined, general "staffing" item on the 2000 survey questionnaire.

A comparison of men and women pharmacists in 2004 revealed that more women than men rated items as highly stressful with the exception of paperwork (Table 4.2.2). The largest differences occurred for the staffing items, and two new items on the 2004 survey, fear of making a mistake and having so much work to do. The results on the stress measures across genders were generally similar in 2000 and 2004 (for items or aspects that were contained in both surveys).

A comparison of stress for pharmacists in staff and management positions is shown in Table 4.2.3. In 2004, more staff pharmacists felt that inadequate staffing was highly stressful, while pharmacists in management positions indicated that doing excessive paperwork was more stressful for them. Staff pharmacists felt that not receiving constructive feedback from their supervisors and not experiencing job policies and procedures being enforced consistently was more stressful than pharmacists in management. These trends were consistent in both 2000 and 2004. Noteworthy contrasts between management and staff pharmacists among the items added in the 2004 survey include dealing with difficult patients being more of a stressor for managers and fear of making a mistake more of a stressor for staff pharmacists.

Stress ratings for pharmacist respondents categorized by years of experience are summarized in Table 4.2.4. In 2004, there were no general trends or tendencies for pharmacists in specific experience categories to rate items highly stressful, but there were some areas of variation worth

noting. Pharmacists with the least amount of experience rated inadequate pharmacist staffing as highly stressful more than other pharmacists; they also less often rated "excessive paperwork" and "not being able to practice the way they think it should be practiced" highly stressful compared to other pharmacists. Pharmacists with 11 to 20 years of experience more often rated "having so much to do that everything cannot be done well" as highly stressful. The 2004 and 2000 patterns of stress ratings by years of experience were similar.

4.3 Effect of Workload

The core survey instrument included a section covering workload perceptions and impacts. Pharmacists were asked to report how the current workload in their pharmacy affected various outcomes that we have categorized as job-related, pharmacist health-related, and patient care-related impacts. Responses for all surveyed pharmacists reporting they worked full time in practice are summarized in Tables 4.3.1 though 4.3.3. The tables focus on reports by pharmacists rating the affect of workload as negative. Generally pharmacists noted the effect of their current workload was neutral and few, if any, pharmacists reported their workload had a positive affect on the outcomes.

Table 4.3.1 summarizes the responses when pharmacists were categorized by setting. Overall, the job-related outcomes had lower percents (ranging from 21 to 27%) of pharmacists rating the effect of workload as negative. The pharmacist health-related item, "opportunity to take adequate breaks" had the largest proportion (48%) of pharmacists rating the effect of workload as negative, but as a group, patient care-related outcomes had the most pharmacists rating the effect as negative. Fewer pharmacists in independent and supermarket pharmacy settings rated the effect of workload as negative; this is consistent with the lower prescription volumes in those pharmacies reported previously. Pharmacists in mass merchandiser pharmacies tended to report the most negative impacts due to their current workload.

Comparisons of ratings on the effects of workload between men and women, and management and staff pharmacists, respectively are shown in Tables 4.3.2 and 4.3.3. Generally, there were few places where pharmacists' responses differed in these comparisons. The biggest differences between men and women occurred for ratings on the impact of workload on job performance, quality of care provided to patients, and time spent in contact with patients; more men than women reported the affect of workload was negative. The biggest differences between management and staff pharmacists occurred for opportunity to reduce potential errors, opportunity to solve drug therapy problems, and quality of care provided to patients; staff pharmacists' impact assessments were more negative.

4.4 Future Work Plans

The career supplement survey contained questions asking pharmacists to rate how easy (very difficult, difficult, neither difficult nor easy, easy, very easy) it would be to find an acceptable job within the year and to find a job with specific characteristics. The career supplement also contained questions asking pharmacists how likely it was that they would leave their current job

and to evaluate the importance of several characteristics of their current job in making their decision to leave or stay. The tables in this section contain information for pharmacists working full-time.

Table 4.4.1 summarizes the proportions of pharmacists reporting it would be difficult to find alternate positions or one with specified characteristics. Overall, 32% of pharmacists responding to the 2004 survey reported that it would be difficult or very difficult to find an acceptable job within the year. And, there was considerable variability in the percents of pharmacists reporting difficulty in finding jobs with the different characteristics. For example, 67% of pharmacists reported it would be difficult or very difficult to find a job with a better work schedule, but 27% reported it would be difficult or very difficult to find a job with more patient contact. Where higher percentages of pharmacists reported difficulty in finding a job with a given characteristic, it suggests that their current job is more consistent with what the pharmacist wants and/or it would be harder to improve the level of that characteristic by switching jobs.

The results for 2004 generally were similar to the results in 2000. A slightly higher percentage of pharmacists in 2004 reported it would be difficult to find an acceptable job alternative, suggesting more satisfaction with their current positions. However, slightly lower percentages of pharmacists reported it would be difficult to find a job with less workload, more patient contact, and better advancement opportunity, suggesting those aspects of positions were worse in 2004.

The cross setting comparison in Table 4.4.1 reveals fewer pharmacists in chain, mass merchandiser and supermarket pharmacies reported it would be difficult or very difficult to find an acceptable job within the next year (19 to 28% in these settings versus 35 to 48% in all other settings). Across settings, the most variation in the proportions of pharmacists reporting it would be difficult or very difficult to find a job with a given characteristic resulted for better work schedule, better pay, more intellectual challenge, more patient contact, and better professional treatment by management. When comparing 2004 and 2000 results, there is considerable variation both within a setting as well as across settings in the direction and size of changes in the proportions of pharmacists who reported it would be difficult or very difficult to find each characteristic in a job.

The comparison of pharmacists' ratings by gender in Table 4.4.2 shows roughly equal proportions of males (30%) and females (33%) reported it would be difficult or very difficult to find an acceptable job within the year. For both males and females a better work schedule was the most difficult characteristic to find. Generally, a higher percentage of men reported difficulty in finding jobs with the rated characteristics except for a better schedule and less workload. Compared to 2000, in 2004 it seemed that for each characteristic, generally, a higher proportion of males found it difficult or very difficult to find a job with the characteristic compared to females.

In a comparison of pharmacists by years of experience (Table 4.4.3), the proportion of pharmacists who reported it would be difficult or very difficult to find an acceptable job within the next year ranged from 19% for pharmacists with 0 to 5 years of experience to 36% for pharmacists with 6 to 10 years of experience. The most variation in the proportions of pharmacists who reported it would be difficult or very difficult to find an acceptable job with

specific characteristics resulted for better technician co-workers and less workload. For both characteristics, the greatest proportions of pharmacists who reported it would be difficult or very difficult to find the characteristic were those with five years or less of experience. In 2000, there was less variability across years of experience groups in the proportions of pharmacists who reported it would be difficult or very difficult to find an acceptable job within the next year. There were some contrasts in characteristic ratings between surveys for experience groups, but no overall trend or patterns were evident.

Turnover intention was assessed by asking pharmacists how likely it was that they would think about leaving, search for other employment, or actually leave their current employment in the next year. A seven-point scale was used for these three questions and a mean score of five or more (at least slightly likely) on the three items was judged as intention to leave. Overall, 23% of pharmacists reported they were likely to leave in the next year, considerably less than the 31% in 2000 (Table 4.4.4). Across practice settings in 2004, 15% of pharmacists in hospitals reported they were likely to leave compared to 38% of pharmacists in supermarkets. Between 2000 and 2004, the rate of turnover intention decreased in independent pharmacies, chains, mass merchandisers, hospitals and other patient care settings.

The rates of turnover intention were similar for males and females in both 2004 and 2000 (Table 4.4.5). By position (Table 4.4.6), the rate of turnover intention for staff pharmacists (29%) was greater than the rate for pharmacists in management positions (14%). The reduction in turnover intention between 2000 and 2004 was larger for pharmacists in management positions compared to pharmacists in staff positions. By years of experience, pharmacists with 0-5 years of experience had the lowest turnover intention rate and pharmacists with 6-10 years of experience had the highest turnover intention rate in 2004 (Table 4.4.7). Between 2000 and 2004, the rate of turnover intention decreased in each years of experience category except pharmacists with 6-10 years of experience.

Pharmacists who reported being likely to leave were asked to rate the importance of potential reasons for leaving. Table 4.4.8 shows that the reasons for leaving rated “very important” most commonly were work schedule (55%) followed by salary (43%) and benefits (42%). The reason least often reported as “very important" was amount of patient contact. For three of the 10 reasons with data for 2000 and 2004, a lower proportion of pharmacists rated the reasons as “very important” in 2004 compared to 2000 (advancement opportunity, treatment by management, and amount of patient contact). The number of responses in 2004 is lower than in 2000 because these items appeared only on the career supplement in 2004 and only those reporting they were likely to leave in the next year provided ratings.

Pharmacists who received the career supplement survey and did not report being likely to leave their current position in the next year were asked to rate the importance of reasons in their decision to stay in their current job. The percents of pharmacists rating reasons for staying as very important are summarized in Table 4.4.9. The three most common very important reasons were work schedule (52%), benefits (41%) and spouse/family relocation (37%). The least commonly reported reasons that were very important for staying were amount of patient contact (7%), desire a change (8%) and intellectual challenge (15%). A comparison of responses for

2004 and 2000 was not possible because no data about reasons for staying were collected in the 2000 workforce survey.

Table 4.1.1: Work Attitudes for Pharmacists Working Full-time by Practice Setting

Work Attitude (% experiencing high levels of each work attitude)	Independent	Chain	Mass Merchandiser	Super-market	Hospital	Other Patient Care	Other	Total
2004	(n = 42)	(n = 102)	(n = 18)	(n = 32)	(n = 106)	(n = 40)	(n = 8)	(n = 349)
Role Conflict	7	24	50	31	22	12	38	22
Role Overload	64	75	61	63	73	55	50	68
Role Ambiguity	2	9	17	10	11	15	14	10
Work-Home Conflict	45	59	50	28	29	27	13	40
Job Satisfaction	95	70	56	63	81	88	50	77
Organizational Commitment	86	51	39	34	65	61	63	59
Career Commitment	86	59	44	63	66	71	63	65
2000	(n = 181)	(n = 360)	(n = 101)	(n =131)	(n = 349)	(n = 187)	(n = 92)	(n=1,401)
Role Conflict	24	34	45	37	32	28	21	32
Role Overload	72	82	80	70	81	68	58	76
Role Ambiguity	7	11	12	8	18	11	10	12
Work-Home Conflict	44	55	62	50	53	46	46	51
Job Satisfaction	76	59	61	69	63	68	82	66
Organizational Commitment	81	51	47	54	53	60	53	58
Career Commitment	58	49	36	48	53	47	54	50

Note: Based on respondents to the worklife supplement. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." 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. It primarily includes industry, academia, managed care administrators, and government. High level was defined as scoring above the midpoint of the summated score. Role Conflict is a six-item measure, Role Overload is a three-item measure, Role Ambiguity is a five-item measure, Work-Home Conflict is a two-item measure, and Organizational Commitment is a four-item measure and all were measured using a seven-point scale (1 = strongly disagree, 7 = Strongly agree). Job Satisfaction is a five-item measure and Career Commitment is a five-item measure and both were measured using a five-point scale (1 = strongly disagree to 5 = strongly agree). See Appendix A for the definition of each construct, the items used to measure each construct, and the source of the items.

Table 4.1.2: Work Attitudes for Pharmacists Working Full-Time by Gender

Work Attitude (% experiencing high levels of each work attitude)	Male	Female	Total
2004	(n = 208)	(n = 139)	(n = 349)
Role Conflict	23	22	22
Role Overload	67	70	68
Role Ambiguity	10	11	10
Work-Home Conflict	43	35	4
Job Satisfaction	76	78	77
Organizational Commitment	60	58	59
Career Commitment	61	72	65
2000	(n = 825)	(n = 576)	(n = 1,401)
Role Conflict	33	29	32
Role Overload	75	78	76
Role Ambiguity	12	12	12
Work-Home Conflict	49	55	51
Job Satisfaction	63	71	66
Organizational Commitment	56	62	58
Career Commitment	46	56	50

Note: Based on respondents to the worklife supplement. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." Full-time pharmacists worked more than 30 hours weekly in their primary employment setting. High level was defined as scoring above the midpoint of the summated score. Role Conflict is a six-item measure, Role Overload is a three-item measure, Role Ambiguity is a five-item measure, Work-Home Conflict is a two-item measure, and Organizational Commitment is a four-item measure and all were measured using a seven-point scale (1 = strongly disagree, 7 = Strongly agree). Job Satisfaction is a five-item measure and Career Commitment is a five-item measure and both were measured using a five-point scale (1 = strongly disagree to 5 = strongly agree). See Appendix A for the definition of each construct, the items used to measure each construct, and the source of the items.

Table 4.1.3: Work Attitudes for Pharmacists Working Full-Time by Position

Work Attitude (% experiencing high levels of each work attitude)	Management	Staff	Total
2004	(n =145)	(n =204)	(n =349)
Role Conflict	18	25	22
Role Overload	70	66	68
Role Ambiguity	7	12	10
Work-Home Conflict	41	39	40
Job Satisfaction	81	73	77
Organizational Commitment	73	49	59
Career Commitment	71	62	66
2000	(n = 595)	(n = 806)	(n = 1,401)
Role Conflict	29	33	32
Role Overload	73	78	76
Role Ambiguity	11	13	12
Work-Home Conflict	52	51	51
Job Satisfaction	71	62	66
Organizational Commitment	69	50	58
Career Commitment	53	48	50

Note: Based on respondents to the worklife supplement. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." Full-time pharmacists worked more than 30 hours weekly in their primary employment setting. Management includes pharmacists who are owners/partners, managers, directors, supervisors and assistant managers. High level was defined as scoring above the midpoint of the summated score. Role Conflict is a six-item measure, Role Overload is a three-item measure, Role Ambiguity is a five-item measure, Work-Home Conflict is a two-item measure, and Organizational Commitment is a four-item measure and all were measured using a seven-point scale (1 = strongly disagree, 7 = Strongly agree). Job Satisfaction is a five-item measure and Career Commitment is a five-item measure and both were measured using a five-point scale (1 = strongly disagree to 5 = strongly agree). See Appendix A for the definition of each construct, the items used to measure each construct, and the source of the items.

Table 4.1.4: Work Attitudes for Pharmacists Working Full-time by Years of Experience Group

Work Attitude (% experiencing high levels of each work attitude)	0-5 years	6-10 years	11-20 years	21-30 years	>30 years	Total
2004	(n = 35)	(n = 43)	(n = 73)	(n = 118)	(n = 76)	(n = 345)
Role Conflict	17	21	26	22	21	22
Role Overload	66	77	67	66	66	68
Role Ambiguity	3	10	11	14	7	10
Work-Home Conflict	31	40	43	45	35	40
Job Satisfaction	74	82	78	76	75	77
Organizational Commitment	69	61	58	60	54	59
Career Commitment	74	81	60	59	69	66
2000	(n = 238)	(n = 229)	(n = 367)	(n = 369)	(n = 198)	(n = 1,401)
Role Conflict	37	33	34	29	25	32
Role Overload	73	79	76	80	68	76
Role Ambiguity	11	7	14	14	11	12
Work-Home Conflict	55	49	58	53	35	51
Job Satisfaction	65	69	64	63	73	66
Organizational Commitment	56	61	56	60	59	58
Career Commitment	50	53	53	43	55	50

Note: Based on respondents to the worklife supplement. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." Full-time pharmacists worked more than 30 hours weekly in their primary employment setting. High level was defined as scoring above the midpoint of the summated score. Role Conflict is a six-item measure, Role Overload is a three-item measure, Role Ambiguity is a five-item measure, Work-Home Conflict is a two-item measure, and Organizational Commitment is a four-item measure and all were measured using a seven-point scale (1 = strongly disagree, 7 = Strongly agree). Job Satisfaction is a five-item measure and Career Commitment is a five-item measure and both were measured using a five-point scale (1 = strongly disagree to 5 = strongly agree). See Appendix A for the definition of each construct, the items used to measure each construct, and the source of the items.

Table 4.2.1: Job Stress for Pharmacists Working Full-time by Practice Setting

Stress Event (% experiencing high levels of stress by event)	**Independent**	**Chain**	**Mass Merchandiser**	**Super-market**	**Hospital**	**Other Patient Care**	**Other**	**Total**
2004	(n = 43)	(n = 102)	(n = 18)	(n = 32)	(n = 107)	(n = 41)	(n = 7)	(n = 349)
Being interrupted by phone calls or people while performing job duties	23	47	56	34	36	24	14	37
Not being staffed with an adequate number of pharmacists	14	39	39	16	41	32	43	34
Not being staffed with an adequate number of technicians	14	54	61	31	34	24	29	38
Doing excessive paper work (i.e. third party work, medication records)	42	28	39	25	14	17	29	24
Not being able to practice pharmacy the way I think it should be practiced	14	24	22	29	20	10	29	20
Not receiving constructive feedback from my supervisors	5	15	11	23	12	17	29	14
Experiencing job policies and procedures which are not enforced consistently	7	14	17	13	24	12	29	16
*Having so much work to do that everything cannot be done well	12	40	33	22	44	24	14	33
*Disagreeing with other health care professionals concerning the treatment of patients	5	8	6	6	9	12	14	8
*Keeping up with new developments in order to maintain professional competency	7	10	11	16	10	20	29	12
*Dealing with difficult patents	28	50	61	44	17	22	29	33
*Dealing with difficult coworkers	7	33	22	28	35	22	50	29
*Possessing inadequate information regarding a patient's medical condition	2	10	6	13	13	17	14	11

*Feeling ultimately responsible for patient outcomes from drug therapy	7	14	6	16	14	12	14	13
*Fearing that I will make a mistake in treating a patient	9	38	39	28	27	29	29	29
2000	(n = 181)	(n = 360)	(n = 101)	(n =131)	(n = 349)	(n = 187)	(n = 92)	(n = 1,401)
Being interrupted by phone calls or people while performing job duties	42	42	41	37	40	25	10	37
Not being staffed with an adequate number of personnel	19	58	55	45	54	36	20	45
Doing excessive paper work (i.e. third party work, medication records)	29	22	20	22	15	17	8	19
Not being able to practice pharmacy the way I think it should be practiced	19	23	28	19	21	13	9	20
Not receiving constructive feedback from my supervisors	6	15	12	14	17	11	7	13
Experiencing job policies and procedures which are not enforced consistently	4	13	17	13	27	19	10	16

Note: Based on respondents to the worklife supplement. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." 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. It primarily includes industry, academia, managed care administrators, and government. 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). See Appendix A for the source of the items.
* Item not included on 2000 survey.

Table 4.2.2: Job Stress for Pharmacists Working Full-Time by Gender

Stress Event (% experiencing high levels of stress by event)	Male	Female	Total
2004	(n = 208)	(n =140)	(n = 349)
Being interrupted by phone calls or people while performing job duties	34	40	37
Not being staffed with an adequate number of pharmacists	30	39	34
Not being staffed with an adequate number of technicians	34	43	38
Doing excessive paper work (i.e. third party work, medication records)	27	20	24
Not being able to practice pharmacy the way I think it should be practiced	18	23	20
Not receiving constructive feedback from my supervisors	12	17	14
Experiencing job policies and procedures which are not enforced consistently	13	20	16
*Having so much work to do that everything cannot be done well	29	39	33
*Disagreeing with other health care professionals concerning the treatment of patients	8	9	8
*Keeping up with new developments in order to maintain professional competency	10	14	12
*Dealing with difficult patents	33	34	33
*Dealing with difficult coworkers	26	32	29
*Possessing inadequate information regarding a patient's medical condition	9	14	11
*Feeling ultimately responsible for patient outcomes from drug therapy	10	16	12
*Fearing that I will make a mistake in treating a patient	23	37	29
2000	(n = 825)	(n = 576)	(n = 1,401)
Being interrupted by phone calls or people while performing job duties	37	36	37
Not being staffed with an adequate number of personnel	41	51	45
Doing excessive paper work (i.e. third party work, medication records)	21	17	19
Not being able to practice pharmacy the way I think it should be practiced	20	19	20
Not receiving constructive feedback from my supervisors	13	13	13
Experiencing job policies and procedures which are not enforced consistently	15	18	16

Note: Based on respondents to the worklife supplement. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." Full-time pharmacists worked more than 30 hours weekly in their primary employment setting. 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). See Appendix A for the source of the items.
* Item not included on 2000 survey.

Table 4.2.3: Job Stress for Pharmacists Working Full-Time by Position

Stress Event (% experiencing high levels of stress by event)	Management	Staff	Total
2004	(n = 145)	(n = 204)	(n = 349)
Being interrupted by phone calls or people while performing job duties	34	39	37
Not being staffed with an adequate number of pharmacists	29	37	34
Not being staffed with an adequate number of technicians	33	41	38
Doing excessive paper work (i.e. third party work, medication records)	32	19	24
Not being able to practice pharmacy the way I think it should be practiced	21	20	20
Not receiving constructive feedback from my supervisors	9	17	14
Experiencing job policies and procedures which are not enforced consistently	8	22	16
*Having so much work to do that everything cannot be done well	31	35	33
*Disagreeing with other health care professionals concerning the treatment of patients	6	10	8
*Keeping up with new developments in order to maintain professional competency	10	13	12
*Dealing with difficult patents	40	29	33
*Dealing with difficult coworkers	29	28	28
*Possessing inadequate information regarding a patient's medical condition	8	13	11
*Feeling ultimately responsible for patient outcomes from drug therapy	10	15	13
*Fearing that I will make a mistake in treating a patient	22	34	29
2000	(n =595)	(n = 806)	(n = 1,401)
Being interrupted by phone calls or people while performing job duties	33	40	37
Not being staffed with an adequate number of personnel	38	51	45
Doing excessive paper work (i.e. third party work, medication records)	23	17	19
Not being able to practice pharmacy the way I think it should be practiced	22	18	20
Not receiving constructive feedback from my supervisors	10	15	13
Experiencing job policies and procedures which are not enforced consistently	12	20	16

Note: Based on respondents to the worklife supplement. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." Full-time pharmacists worked more than 30 hours weekly in their primary employment setting. Management includes pharmacists who are owners/partners, managers, directors, supervisors and assistant managers. 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). See Appendix A for the source of the items.

- Item not included on 2000 survey.

Table 4.2.4: Job Stress for Pharmacists Working Full-Time by Years of Experience Group

Stress Event (% experiencing high levels of stress by event)	0-5 years	6-10 years	11-20 years	21-30 years	>30 years	Total
2004	(n = 35)	(n = 44)	(n = 73)	(n = 118)	(n = 75)	(n = 345)
Being interrupted by phone calls or people while performing job duties	29	39	44	38	34	37
Not being staffed with an adequate number of pharmacists	51	30	40	33	24	34
Not being staffed with an adequate number of technicians	43	39	41	37	31	38
Doing excessive paper work (i.e. third party work, medication records)	14	23	34	24	21	24
Not being able to practice pharmacy the way I think it should be practiced	14	23	22	21	16	30
Not receiving constructive feedback from my supervisors	9	14	19	13	10	13
Experiencing job policies and procedures which are not enforced consistently	14	11	14	17	18	16
*Having so much work to do that everything cannot be done well	34	34	44	36	18	33
*Disagreeing with other health care professionals concerning the treatment of patients	11	11	10	7	5	8
*Keeping up with new developments in order to maintain professional competency	9	11	15	11	11	12
*Dealing with difficult patients	20	32	41	40	25	34
*Dealing with difficult coworkers	26	30	41	30	17	29
*Possessing inadequate information regarding a patient's medical condition	9	16	12	11	8	11
*Feeling ultimately responsible for patient outcomes from drug therapy	17	11	14	14	8	13
*Fearing that I will make a mistake in treating a patient	31	39	33	25	25	29
2000	(n = 238)	(n = 229)	(n = 367)	(n = 369)	(n =198)	(n =1,401)
Being interrupted by phone calls or people while performing job duties	32	35	40	38	36	37
Not being staffed with an adequate number of personnel	52	45	49	44	33	45

Doing excessive paper work (i.e. third party work, medication records)	22	13	16	23	22	19
Not being able to practice pharmacy the way I think it should be practiced	24	18	19	21	18	20
Not receiving constructive feedback from my supervisors	13	14	13	12	12	13
Experiencing job policies and procedures which are not enforced consistently	18	17	18	16	12	16

Note: Based on respondents to the worklife supplement. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." Full-time pharmacists worked more than 30 hours weekly in their primary employment setting. 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). See Appendix A for the source of the items.
* Item not included on 2000 survey.

Table 4.3.1: Effect of Current Workload on Pharmacists Working Full-time by Practice Setting

Effect that current level of workload in the pharmacy has on: (% reporting "negative" or "very negative")	**Indepen -dent**	**Chain**	**Mass Merchan -diser**	**Super- market**	**Hospital**	**Other Patient Care**	**Other**	**Total**
	(n = 124)	(n = 276)	(n = 45)	(n = 103)	(n = 264)	(n = 107)	(n = 13)	(n = 932)
Job Related								
Job performance	16	29	31	12	25	12	25	22
Motivation to work at this pharmacy	16	26	36	15	19	16	33	21
Job satisfaction	19	32	36	22	28	20	33	27
Pharmacist Related								
Mental/emotional health	21	33	38	26	34	24	50	30
Physical health	20	31	44	24	25	23	25	27
Opportunity to take adequate breaks	43	62	53	52	41	27	18	48
Patient Care Related								
Time spent in contact with patients	29	45	47	26	33	25	27	35
Quality of care provided to patients	21	32	36	18	30	23	0	27
Opportunity to solve drug therapy problems	24	37	42	24	38	26	18	33
Opportunity to reduce potential errors	29	39	40	20	46	28	18	36

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. 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. It primarily includes industry, academia, managed care administrators, and government. Effect of current level of workload in pharmacy on each aspect was measured using a 5-point scale (1=very negative, 2=negative, 3=neither negative nor positive, 4=positive, and 5=very positive)

Table 4.3.2: Effect of Current Workload on Pharmacists Working Full-time by Gender

Effect current level of workload in the pharmacy has on: (% reporting "negative" or "very negative")	Male (n = 525)	Female (n = 407)	Total (n = 932)
Job Related			
Job performance	27	17	22
Motivation to work at this pharmacy	22	20	21
Job satisfaction	28	26	27
Pharmacist Related			
Mental/emotional health	30	31	30
Physical health	26	27	27
Opportunity to take adequate breaks	48	47	48
Patient Care Related			
Time spent in contact with patients	36	32	35
Quality of care provided to patients	29	23	27
Opportunity to solve drug therapy problems	34	31	33
Opportunity to reduce potential errors	36	35	36

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Full-time pharmacists worked more than 30 hours weekly in their primary employment setting. Effect of current level of workload in pharmacy on each aspect was measured using a 5-point scale (1=very negative, 2=negative, 3=neither negative nor positive, 4=positive, and 5=very positive)

Table 4.3.3: Effect of Current Workload on Pharmacists Working Full-time by Position

Effect current level of workload in the pharmacy has on: (% reporting "negative" or "very negative")	**Management** (n = 302)	**Staff** (n = 567)	**Total** (n = 934)
Job Related			
Job performance	20	24	22
Motivation to work at this pharmacy	18	22	21
Job satisfaction	25	28	27
Pharmacist Related			
Mental/emotional health	29	31	30
Physical health	26	27	26
Opportunity to take adequate breaks	50	46	48
Patient Care Related			
Time spent in contact with patients	33	36	35
Quality of care provided to patients	23	29	27
Opportunity to solve drug therapy problems	30	35	33
Opportunity to reduce potential errors	32	38	36

Note: Results based on respondents who provided information for a minimum set of variables in the core survey. Full-time pharmacists worked more than 30 hours weekly in their primary employment setting. Effect of current level of workload in pharmacy on each aspect was measured using a 5-point scale (1=very negative, 2=negative, 3=neither negative nor positive, 4=positive, and 5=very positive). Management includes pharmacists who are owners/partners, managers, directors, supervisors and assistant managers.

Table 4.4.1: Full-time Pharmacists' Ratings of the Difficulty of Finding an Acceptable Job in Pharmacy by Practice Setting

Difficulty of finding an acceptable job (% reporting difficult or very difficult to find:)	**Indepen -dent**	**Chain**	**Mass Merchan -diser**	**Super- market**	**Hospital**	**Other Patient Care**	**Other**	**Total**
2004	(n = 39)	(n = 94)	(n = 18)	(n =35)	(n = 86)	(n = 40)	(n = 19)	(n=331)
An acceptable job alternative within the next year	38	19	28	23	35	48	47	32
A better work schedule	67	55	72	49	72	93	68	67
Better pharmacist co-workers	67	50	45	63	47	68	42	54
Better technician co-workers	74	53	50	63	44	45	26	52
Less workload	54	44	45	49	48	55	42	47
Better pay	41	35	28	14	27	33	58	32
More intellectual challenge	44	19	33	11	49	50	58	36
More patient contact	62	22	33	31	20	18	26	27
Better advancement opportunity	33	29	39	23	23	25	53	29
Better benefits	39	37	44	40	49	38	74	43
Less stress	59	38	45	57	49	45	53	47
Better professional treatment by management	72	36	50	43	50	53	53	48
Better geographic location	64	50	45	60	45	53	58	52
Better relationships with patients	74	36	39	43	27	28	22	37
Better relationship with management	77	33	39	34	41	48	42	43
Better professional role opportunity	66	25	33	32	38	58	47	39
Better pharmacist staffing levels	54	43	61	54	43	53	42	48
Better technician staffing levels	67	42	61	52	43	50	32	48
2000	(n = 174)	(n = 363)	(n = 104)	(n = 133)	(n = 358)	(n = 200)	(n = 94)	(n=1,426)
An acceptable job alternative within the next year	32	25	23	26	26	33	48	29
A better work schedule	63	61	58	63	62	74	80	64
Better co-workers *	72	61	57	63	48	60	71	59
Less workload	57	52	52	64	46	51	48	52
Better pay	41	40	26	28	18	25	40	30
More intellectual challenge	33	29	20	27	45	39	67	37

More patient contact	52	42	38	52	23	23	17	35
Better advancement opportunity	43	40	32	38	29	32	46	36
Better benefits	26	47	30	43	39	32	59	40
Less stress	55	50	54	56	43	48	47	49
Better professional treatment by management	62	47	46	48	42	47	63	49

Note: Based on respondents to the career supplement . Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." Full-time pharmacists worked more than 30 hours weekly in their primary employment setting. The difficulty of finding each characteristic of an acceptable job alternative was measured using a 5-point scale (1=very difficult, 2= difficult, 3=neither difficult nor easy, 4=easy, and 5=very easy). 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. It primarily includes industry, academia, managed care administrators, and government.

* "Better co-workers" was expanded into two items, namely "better pharmacist co-workers" and "better technician co-workers" for 2004.

Table 4.4.2: Full-time Pharmacists' Ratings of the Difficulty of Finding an Acceptable Job in Pharmacy by Gender (2004 and 2000)

Difficulty of finding an acceptable job (% reporting difficult or very difficult to find:)	**Male**	**Female**	**Total**
2004	(n = 186)	(n = 145)	(n = 331)
An acceptable job alternative within the next year	30	33	32
A better work schedule	62	72	67
Better pharmacist co-workers	54	53	54
Better technician co-workers	55	47	52
Less workload	46	49	47
Better pay	36	28	32
More intellectual challenge	39	31	36
More patient contact	31	23	27
Better advancement opportunity	34	22	29
Better benefits	47	38	43
Less stress	49	45	47
Better professional treatment by management	51	45	48
Better geographic location	53	50	52
Better relationships with patients	37	38	37
Better relationship with management	45	41	43
Better professional role opportunity	45	32	39
Better pharmacist staffing levels	50	44	48
Better technician staffing levels	49	45	48
2000	(n = 829)	(n = 597)	(n = 1,426)
An acceptable job alternative within the next year	26	32	29
A better work schedule	61	69	64
Better co-workers*	60	58	59
Less workload	51	53	52
Better pay	33	27	30
More intellectual challenge	37	36	37
More patient contact	37	32	35
Better advancement opportunity	39	32	36
Better benefits	41	38	40
Less stress	49	50	49
Better professional treatment by management	49	48	49

Note: Based on respondents to the career supplement . Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." Full-time pharmacists worked more than 30 hours weekly in their primary employment setting. The difficulty of finding each characteristic of an acceptable job alternative was measured using a 5-point scale (1=very difficult, 2= difficult, 3=neither difficult nor easy, 4=easy, and 5=very easy).

* "Better co-workers" was expanded into two items, namely "better pharmacist co-workers" and "better technician co-workers" for 2004.

Table 4.4.3: Full-time Pharmacists' Ratings of the Difficulty of Finding an Acceptable Job in Pharmacy by Years of Experience

Difficulty of finding an acceptable job
(% reporting difficult or very difficult to find:)

	0-5 years	6-10 years	11-20 years	21-30 years	>30 years	Total
2004	(n = 21)	(n = 55)	(n = 81)	(n = 110)	(n = 64)	(n = 331)
An acceptable job alternative within the next year	19	36	32	31	31	32
A better work schedule	71	71	73	65	55	67
Better pharmacist co-workers	67	55	54	48	58	54
Better technician co-workers	71	46	46	51	59	52
Less workload	67	38	52	51	38	47
Better pay	38	36	31	29	33	32
More intellectual challenge	38	31	33	37	39	36
More patient contact	33	20	21	31	33	27
Better advancement opportunity	33	24	31	26	34	29
Better benefits	48	49	37	43	45	43
Less stress	43	40	47	49	53	47
Better professional treatment by management	57	51	45	45	55	48
Better geographic location	48	44	45	55	66	52
Better relationships with patients	24	26	42	37	46	37
Better relationship with management	38	42	42	40	52	43
Better professional role opportunity	38	38	37	36	50	39
Better pharmacist staffing levels	43	45	47	47	53	48
Better technician staffing levels	43	48	43	52	47	48
2000	(n = 242)	(n = 233)	(n = 370)	(n =384)	(n =197)	(n = 1,426)
An acceptable job alternative within the next year	27	27	30	29	28	29
A better work schedule	61	70	65	63	64	64
Better co-workers *	55	58	58	59	70	59

Less workload	50	53	51	52	55	52
Better pay	25	27	31	33	36	30
More intellectual challenge	34	35	37	40	34	37
More patient contact	32	31	33	35	44	35
Better advancement opportunity	28	35	37	40	37	36
Better benefits	31	46	39	40	42	40
Less stress	45	53	48	48	54	49
Better professional treatment by management	46	52	45	47	56	49

Note: Based on respondents to the career supplement . Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." Full-time pharmacists worked more than 30 hours weekly in their primary employment setting. The difficulty of finding each characteristic of an acceptable job alternative was measured using a 5-point scale (1=very difficult, 2= difficult, 3=neither difficult nor easy, 4=easy, and 5=very easy).
* "Better co-workers" was expanded into two items, namely "better pharmacist co-workers" and "better technician co-workers" for 2004.

Table 4.4.4: Turnover Intention Among Full-time Pharmacists by Practice Setting (2004 and 2000)

	Independent	Chain	Mass Merchandiser	Super-market	Hospital	Other Patient Care	Other	Total
2004	(n = 39)	(n = 96)	(n = 17)	(n = 34)	(n = 88)	(n = 39)	(n = 22)	(n = 335)
% likely to leave current position	16	24	24	38	15	21	41	23
2000	(n = 174)	(n = 363)	(n = 104)	(n =133)	(n = 358)	(n = 200)	(n = 94)	(n=1,426)
% likely to leave current position	20	32	28	29	35	38	26	31

Note: Based on respondents to the career supplement . Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." Full-time pharmacists worked more than 30 hours weekly in their primary employment setting. Turnover intention is a 3 item measure and it was measured using a 7-point scale (1=very unlikely and 7=very likely). See Appendix A for the definition of each construct, the items used to measure each construct, and the source of the items. "Likely to leave current employer" was defined as a mean greater than or equal to 15 for the 3-item measure. 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. It primarily includes industry, academia, managed care administrators, and government.

Table 4.4.5: Turnover Intention Among Full-time Pharmacists by Gender (2004 and 2000)

	Male	Female	Total
2004	(n = 186)	(n = 149)	(n = 335)
% likely to leave current position	23	22	23
2000	(n = 829)	(n = 597)	(n = 1,426)
% likely to leave current position	31	31	31

Note: Based on respondents to the career supplement . Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." Full-time pharmacists worked more than 30 hours weekly in their primary employment setting. Turnover intention is a 3 item measure and it was measured using a 7-point scale (1=very unlikely and 7=very likely). See Appendix for the definition of each construct, the items used to measure each construct, and the source of the items. "Likely to leave current employer" was defined as a mean greater than or equal to 15 for the 3-item measure.

Table 4.4.6: Turnover Intention Among Full-time Pharmacists by Position (2004 and 2000)

	Management	Staff	Total
2004	(n = 132)	(n = 203)	(n = 335)
% likely to leave current position	14	29	23
2000	(n = 596)	(n = 829)	(n = 1,426)
% likely to leave current position	29	33	31

Note: Based on respondents to the career supplement . Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." Full-time pharmacists worked more than 30 hours weekly in their primary employment setting. Turnover intention is a 3 item measure and it was measured using a 7-point scale (1=very unlikely and 7=very likely See Appendix A for the definition of each construct, the items used to measure each construct, and the source of the items. "Likely to leave current employer" was defined as a mean greater than or equal to 15 for the 3-item measure. ." Management includes pharmacists who are owners/partners, managers, directors, supervisors and assistant managers.

Table 4.4.7: Turnover Intention Among Full-time Pharmacists by Years of Experience (2004 and 2000)

	0-5 years	6-10 years	11-20 years	21-30 years	>30 years	Total
2004	(n = 23)	(n = 54)	(n = 82)	(n = 114)	(n = 62)	(n = 335)
% likely to leave current position	17	28	21	24	21	23
2000	(n = 242)	(n = 233)	(n = 370)	(n =384)	(n =197)	(n = 1,426)
% likely to leave current position	41	28	32	29	25	31

Note: Based on respondents to the career supplement . Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." Full-time pharmacists worked more than 30 hours weekly in their primary employment setting. Turnover intention is a 3 item measure and it was measured using a 7-point scale (1=very unlikely and 7=very likely). See Appendix A for the definition of each construct, the items used to measure each construct, and the source of the items. "Likely to leave current employer" was defined as a mean greater than or equal to 15 for the 3-item measure.

Table 4.4.8: Importance of Reasons for Leaving Current Job for Pharmacists Working Full-time Who Are Likely to Leave Current Job (2004 and 2000)

How important is each reason in your decision to leave your current job (% reporting "very important")	**2004**	**2000**
	(n = 76)	(n = 441)
Work schedule	55	31
Technician co-workers	24	**
Pharmacist co-workers	28	**
Co-workers	*	13
Workload	29	29
Salary	43	33
Benefits	42	33
Advancement opportunity	16	23
Desire a change	17	27
Treatment by management	30	27
Intellectual challenge	21	21
Amount of patient contact	8	11
Spouse / family relocation	28	23
Stress level	35	**
Pharmacist staffing levels	26	**
Technician staffing levels	25	**
Relationships with patients	9	**
Relationships with management	22	**

Note: Based on respondents to the career supplement. Data for 2000 based on respondents to the "National Pharmacists Workforce Survey: 2000." Full-time pharmacists worked more than 30 hours weekly in their primary employment setting. Importance of each reason was measured using a 5-point scale (1=very unimportant, 2=unimportant, 3=neither unimportant nor important, 4=important, and 5=very important).
* Item not included in 2004 survey.
** Item not included in 2000 survey.

Table 4.4.9: Importance of Reasons for Staying at Current Job for Pharmacists Working Full-time Who Are Likely to Stay at Current Job (data available for 2004 only)

How important is each reason in your decision to Stay at your current job (% reporting "very important")	**2004**
	(n = 259)
Work schedule	52
Technician co-workers	22
Pharmacist co-workers	24
Workload	23
Salary	31
Benefits	41
Advancement opportunity	12
Desire a change	8
Treatment by management	19
Intellectual challenge	15
Amount of patient contact	7
Spouse / family relocation	37
Stress level	32
Pharmacist staffing levels	20
Technician staffing levels	21
Relationships with patients	10
Relationships with management	17

Note: Based on respondents to the career supplement. Full-time pharmacists worked more than 30 hours weekly in their primary employment setting. Importance of each reason was measured using a 5-point scale (1=very unimportant, 2=unimportant, 3=neither unimportant nor important, 4=important, and 5=very important). Similar data were not collected in 2000.

CONCLUSIONS

This report provides a descriptive overview of pharmacist characteristics, characteristics of pharmacists' work environments and pharmacists' reactions to their work for a sample of pharmacists in the United States in 2004. A key feature of this report is the comparison of data in 2004 with similar data collected in 2000. The responses to the 2004 survey suggest that pharmacists generally are working less, being paid more, and have a better perspective toward their work and careers than in 2000. Although pharmacists work fewer hours per week, they are personally responsible for more prescriptions each day and they have more non-pharmacist personnel working with them. Their activities and equipment in their practice settings continue to have an emphasis on dispensing prescriptions. More favorable opinions among pharmacists were reflected in their work attitudes, decreased turnover intention, and higher reports of difficulty in finding a job with better characteristics than their present position.

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APPENDIX A
Definitions and Items Used for Measurement for Survey Constructs

Entrepreneurial Orientation

Source: Doucette, William R. and Thanigavelan Jambulingam, "Pharmacy Entrepreneurial Orientation: Antecedents and Its Effect on the Provision of Pharmacy Services," Journal of Social and Administrative Pharmacy, 16 (1 1999):26-37.)

Construct: Autonomy

Definition: The extent to which all employees of a pharmacy have freedom to bring forth an idea or vision and carry it through to completion

Items: 1. New service ideas suggested by employees are acted upon by decision-makers.
2. Management approves of independent activity by employees to develop new services.
3. Identifying new business opportunities is the concern of all employees.

Construct: Proactiveness

Definition: A pharmacy's processes aimed at anticipating and acting on future needs.

Items: 1. Our pharmacy usually takes action in anticipation of future market conditions.
2. We try to shape our business environment to enhance our presence in the market.
3. Because market conditions are changing, we continually seek out new opportunities.

Construct: Innovativeness

Definition: A pharmacy's tendency to engage in and support new ideas, novelty, experimentation, and creative processes that may result in new services.

Items: 1. Our pharmacy is known as an innovator among pharmacies in our area.
2. We promote new, innovative services in our pharmacy.
3. Our pharmacy provides leadership in developing new services.

Construct: Competitive Aggressiveness

Definition: A pharmacy's tendency to directly and intensely challenge its competitors to achieve entry or improve its market position.

Items: 1. We directly challenge our competitors.
2. We are responsive to maneuvers of our rivals.

3. Our actions towards competitors can be termed aggressive.

Construct: Work Ethic

Definition: The extent of employees' attitude and morality toward hard work

Items: 1. We consider ourselves as having high motivation toward work.
2. Our employees are a group of hard working individuals.
3. At our pharmacy we are very ambitious about our work

Construct: Risk Taking

Definition: A pharmacy's proclivity to engage in risky projects

Items: 1. Taking gambles is part of our strategy for success.
2. We take above average risks in our business.
3. Taking chances is an element of our business strategy.

Work Attitudes

Construct: Role Conflict

Source: Rizzo JR, House RJ, Lirtzman SI. Role conflict and ambiguity in complex organizations. *Administrative Science Quarterly*. 1970;15:150-163.

Definition: The simultaneous occurrence of two or more sets of pressures such that compliance with one would make compliance with the other more difficult.

Items: 1. I am required to do things in my job that are against my professional judgment
2. I have to "buck" a rule or policy in order to carry out my duties
3. I often receive incompatible requests from two or more people
4. I work on many unnecessary things
5. I work under incompatible policies and guidelines
6. I often have to choose between the business and professional aspects of pharmacy

Construct: Role Overload

Source: Bacharach SB, Bamberger P, Conley SC. Work processes, role conflict and role overload *Work and Occupations.* 1990; 17: 199-228

Definition: The conflict between time and organizational demands concerning the amount of work to be done.

Items: 1. I am rushed doing my job
2. I have a lot of free time on my job
3. The amount of work I am asked to do is fair

Construct: Role Ambiguity

Source: Rizzo JR, House RJ, Lirtzman SI. Role conflict and ambiguity in complex organizations. *Administrative Science Quarterly*. 1970;15:150-163.

Definition: The extent to which an individual is unclear about the expectations of others as well as the degree of uncertainty associated with one's performance.

Items: 1. I feel certain about the amount of authority I have
2. I have clear, planned goals and objectives for my job
3. I know I have managed my time properly at work
4. I know what my responsibilities are
4. I know exactly what is expected of me
5. The explanation is clear as to what needs to be done daily on my job

Construct: Work-Home Conflict

Source: Bacharach SB, Bamberger P, Conley SC. Work-home conflict among nurses and engineers: Meditating the impact of role stress on burnout and satisfaction at work. *Journal of Organizational Behavior*. 1991;12:39-53.

Definition: It is described as conflict in which the role pressures from work and family are mutually incompatible and represents the interface between work and non work roles.

Items: 1. In general, the demands of work do not interfere with my home, family, or social life
2. In general, my work has disadvantages for my home, family, or social life

Construct: Job satisfaction

Source: Bacharach SB, Bamberger P, Conley SC. Work-home conflict among nurses and engineers: Meditating the impact of role stress on burnout and satisfaction at work. *Journal of Organizational Behavior*. 1991;12:39-53.

Definition: It is the match between one's expectations and the perceived reality of the job as a whole.

Items: 1. Your present job when compared to jobs in other organizations
2. The progress you are making toward the goals you set
3. The chance your job gives you to do what you are best at doing
4. Your present job in light of your career expectations
5. Your present job when you consider the expectations you had when you took the job

Construct: Organizational commitment

Source: Meyer JP, Allen NJ. A three-component conceptualization of organizational commitment. Human Resource Management Review, 1991;1:61-89.

Definition: An employee's emotional attachment to, identification with and involvement in the organization.

Items: 1. I do not feel like "part of the family" at my organization
2. I do not feel "emotionally attached" to this organization
3. This organization has a great deal of personal meaning for me
4. I do not feel a strong sense of belonging to my organization

Construct: Career commitment

Source: Hall D. A theoretical model of career sub identity development in organizational settings. Organizational Behavior and Human Performance. 1971;6:50-76.

Definition: The strength of one's motivation to work in a chosen career role.

Items: 1. If I could do it all over again, I would **not** choose to work in the pharmacy profession
2. For me, this is the ideal profession for a life's work
3. I am disappointed that I ever entered the pharmacy profession
4. I like this profession too well to give it up
5. If I could go into a different profession other than pharmacy which paid the same, I would probably do so.

Construct: Job turnover intention

Source: Mobley W, Horner S. and Hollingsworth A. An evaluation of precursors of hospital employee turnover. J Applied Psychology, 1978; 63:408-414.

Definition: Thinking about leaving the current job, searching for another job, and the likelihood of actually leaving the current job.

Items: 1. Think about leaving your current employment within the next year
2. Search for other employment within the next year
3. Actually leave your current employment within the next year

Construct: Job stress

Source: Wolfgang AP. The health professions stress inventory. *Psychological Reports*. 1988; 62:200-202. Gupchup GV, Wolfgang AP. The health professions stress inventory: Factor structures for pharmacists. *Perceptual and motor skills*. 1994;79: 515-519.

Definition: The non-specific negative response of the body to demands in the work place.

Items: The stress items were all together in the survey instrument, and appeared consistent with Tables 4.2.1 through 4.2.4.