PHARMACISTS AND PHARMACY TECHNICIANS: FACTS AND FIGURES

The Center for Disease Control estimates that close to half of all Americans take at least one prescription drug and as much as one in five take at least three.\(^1\) As the primary dispensers of these medications, pharmacists and pharmacy technicians serve a growing role in our health care system. Generally, pharmacists dispense medications, counsel patients on the use of prescription and over-the-counter medications, advise patients about general health topics, and often complete third-party insurance forms and other paperwork, serving as an important liaison between the patient and a complex insurance regulatory system. Pharmacy technicians assist in this important process. Under the direct supervision of a registered pharmacist, they compound medical prescriptions, perform clerical duties, verify stock, and enter data to maintain inventory records.

This fact sheet outlines: general workforce information, prevailing wages and wage differences, women and minorities in pharmacy work, the current labor market, the implications of an aging population, government programs, online pharmacies, and union benefits for pharmacists.

Trends in Training and Employment

- In 2012, there were approximately 286,000 pharmacists\(^2\) and 353,000 pharmacy technicians\(^3\) in the United States.
- Since 2003, the number of pharmacists in the U.S. has fluctuated year to year, but overall has increased by approximately 23 percent in the last decade.\(^4\) The number of pharmacy technicians steadily increased in the same period, adding over 140,000 workers from 2002-2012.\(^5\)
- The U.S. Bureau of Labor Statistics (BLS) projects faster than average growth for both pharmacists and pharmacy technicians from 2010-2020,\(^6\) however changes to the industry or economic events could temper or hasten this growth.
- In April 2013, the Aggregate Demand Index (ADI) calculated by the Pharmacy Manpower Project (PMP) was 3.21; indicating a roughly balanced supply and demand of pharmacists across the country.\(^7\) Also in April 2013, thirty-five states reported a balanced market, while 13 reported moderate demand for pharmacists and three reported a moderate surplus.\(^8\) It is possible within state spatial mismatches exist, (e.g. across urban and rural areas) however, available data do not provide that level of analysis.
- While reports once suggested demand for pharmacists would outpace supply in the coming decade\(^9\), trend data show that this has not been the case over the past 10 year.\(^10\)
While each state has nuance in their laws regarding licensing of pharmacists, all states require, at minimum, both graduation from an accredited first professional degree program from a pharmacy college and passing of the North American Pharmacy Licensing Examination.\textsuperscript{11}

As of 2012, there were 61,275 students enrolled in 124 accredited programs and five pre-candidate programs awaiting accreditation.\textsuperscript{12} Cohorts typically experience an average attrition of 10 percent between enrollment and graduation.\textsuperscript{13}

While there is no national training standard for pharmacy technicians, 129 colleges and schools and 352 continuing education programs offer pharmacy technician programs with some level of accreditation status.\textsuperscript{14}

Laws regarding training, licensing, and staffing of pharmacy technicians vary dramatically by state. In 2012, 16 states and the territory of Guam had no legal limit on the number of technicians a pharmacist may supervise at one time. The remaining states had ratio of technicians to pharmacists ranging from 2:1 to 6:1.\textsuperscript{15} Thirty-five states, Guam, and the District of Columbia require neither licensing nor certification of pharmacy technicians, however, of these, 27 did require registration of technicians.\textsuperscript{16}

Proponents of stricter regulations on ratios cite concerns over increased workloads for pharmacists, deskilling of the industry, and risks to patient safety.\textsuperscript{17}

\textbf{Employment Overview}

In 2010, about 62 percent of pharmacists worked in retail pharmacies that were either independently owned or part of a larger chain, store, or merchandiser. The majority of these pharmacists were salaried, though some were self-employed owners. About 23 percent worked in hospitals, while others worked in clinics, mail-order pharmacies, wholesalers, home health care agencies, or the Federal government.\textsuperscript{18}

In 2010, about 73 percent of pharmacy technician and aide jobs were in retail pharmacies, either independently owned or part of a drugstore chain, grocery store, department store, or mass retailer. About 18 percent were in hospitals. A small proportion was in mail-order and Internet pharmacies, clinics, pharmaceutical wholesalers, and the Federal government.\textsuperscript{19}

About 21 percent of pharmacists worked part-time in 2010. Because many pharmacies are open 24 hours a day, some pharmacists work nights and weekends.\textsuperscript{20} Technicians work similar hours, though as their seniority increases, technicians often acquire increased control over the hours they work. In both retail and hospital settings many technicians work part-time.\textsuperscript{21}

In 2012, Gallup Poll measured public perceptions of professional ethics and honesty and respondents placed pharmacist second only to nurses, with 75 percent of participants responding that pharmacists have “very high” professional ethical standards.\textsuperscript{22}

\textbf{Wages}

In 2012, median annual earnings for pharmacists were $116,670. The lowest 10 percent earned on average about $89,000 while the highest 10 percent earned more than $145,000.\textsuperscript{23}

While pharmacists experienced a 16 percent increase in real wages since 2003, median annual earnings for pharmacy technicians and pharmacy aides did not fare as well. Median annual earnings for pharmacy technicians were $29,320 in 2012, representing just a three
percent increase in real wages since 2003. Pharmacy aides report median annual earnings of $21,860, which represents a four percent decrease in real wages over the last decade.\textsuperscript{24} As pharmacy chains and pharmaceutical companies report record profits, not all workers share in this windfall.\textsuperscript{25}

- Reported earnings vary by industry, type of employment, and region. While health and personal care stores report the highest concentration of pharmacist employment, those working in pharmaceutical and medicine manufacturing report the highest average annual wages.\textsuperscript{26}

**Women and Underrepresented minorities**

- In 2012, 53.7 percent of pharmacists were women.\textsuperscript{27}
- The pharmacist workforce was 6.8 percent Black or African American, 18.5 percent Asian, and 5.1 percent Hispanic or Latino in 2012.\textsuperscript{28}
- The American Association of Colleges of Pharmacy reported that 61 percent of enrollees in first professional degree programs in 2012 were women and 12.4 percent were underrepresented minorities.\textsuperscript{29} However, of those PhD’s awarded in 2011-2012, 55 percent went to men.\textsuperscript{30}
- According to the BLS, the difference in median weekly earnings for men and women employed as pharmacists was less than one percent in 2012. While this is promising, it is important to remember that aggregate numbers do not imply equity within institutions.\textsuperscript{31}

**Reports of Worker Shortages Gradually Fading**

- For most of the early 2000s, the pharmacy field reported high vacancy rates and difficulties in hiring; however, in recent years, reports indicate that the market has transitioned from a candidate-driven market to an employer-driven market. To offset recessionary impact, many employers are hiring more pharmacy technicians and fewer pharmacists.\textsuperscript{32}
- ADI data have trended toward lower demand for pharmacists since late 2006, paralleling the U.S. economic downturn.\textsuperscript{33}
- The high demand in the early to mid-2000s led to the opening of many new pharmacy schools. In 2000, there were 82 pharmacy colleges and schools, by 2005 this number rose to 92, and by 2012 there were 129.\textsuperscript{34}
- Unsurprisingly, as more schools opened, enrollment numbers expanded in kind. AACP reports that enrollments have increased by as little as three to as much as 11 percent each year since 2000.\textsuperscript{35}

**Challenges of an Aging Population**

Pharmacists continue to play an integral role in health care as the U.S. population ages.

- The population of middle aged and elderly people, the largest consumers of prescription drugs, is increasing.
- Over the next 20 years, about 10,000 baby boomers will reach retirement age every day.\textsuperscript{36}
- In May 2013, more than 27 percent of pharmacists were 55 years or over in age. The average age for pharmacists was 45.\textsuperscript{37}
• Should service shortages occur, underserved and vulnerable populations will likely experience the greatest impact, including the elderly, residents in rural areas, the mentally ill, and those who rely on publicly-supported services. Pharmacists would also have less time for patient counseling, which is especially important when dealing with prescription drug plans and complex medications.38

Public Policy
• Implementation of the Affordable Care Act (ACA) is increasing access to medical coverage and lowering costs of prescription drugs, particularly for seniors who are more likely to have multiple prescriptions.39 Expanded access will likely increase demand for pharmaceutical services in the coming years.
• Professional associations like the Academy of Managed Care Pharmacy are working to ensure that pharmacists are classified as health care professionals and attain access to electronic health records.
• Following a 2012 outbreak of fungal meningitis traced back to a compounding pharmacy in New England, both federal and state agencies are now focusing on updating regulations to keep pace with a rapidly changing industry.40

Online Pharmacies
A rapidly expanding online pharmacy industry may slow job growth for pharmacists and pharmacy technicians. While this increased efficiency through regulated virtual pharmacies may translate to lower costs, decreased monitoring of patients and illegal purchase of prescriptions can also increase the risk of adverse drug events.

• Because the online pharmaceutical industry is only partially regulated, it is difficult to make accurate estimates regarding the number of pharmacies and consumers, or the volume of sales occurring online. However, one study estimated that in 2010 there were over 5,800 prescribing sites.41
• The 2006 Pew survey, “Online Health Search,” reported that “prescription or over-the-counter drugs” as the fifth most widely searched health topic on the Internet.42 In 2012, 16 percent of respondents on a similar survey reported searching for a drug they had seen advertised in the last 12 months.43
• In a recent Food and Drug Administration survey of more than 6,000 making online purchases, more than 23 percent of respondents reported using the Internet to buy prescription medicines. Twenty-one percent of those respondents reported buying from an online pharmacy based outside the United States.44
• A recent study conducted at Washington University in St. Louis showed that purchasers of prescription drugs from online pharmacies suffer higher rates of adverse effects, largely due to lack of physician oversight among other reasons.45

Unionization
• In 2012, an estimated 5.9 percent of pharmacists were union members, down from seven percent in 2011.46 The percentage of unionized pharmacy aides dropped from nearly 14 percent in 2011 to only 5.1 percent in 2012, however it is unclear if this drop is a function of sudden policy change or sampling errors.47
• In 2012, unionized pharmacists reported average weekly wages that were seven percent higher than those for non-union pharmacists ($2,052 compared to $1,911).48
A number of unions represent pharmacists across the country including: United Steelworkers, Retail, Wholesale and Department Store Union, Office and Professional Employees Union, the American Federation of Teachers, and the American Federation of Government Employees.

13 Ibid.
16 Ibid.
28 Ibid.
30 Ibid.
33 Ibid.
For more information about professional and technical workers, check DPE’s website: www.dpeaflcio.org.

The Department for Professional Employees, AFL-CIO (DPE) comprises 20 AFL-CIO unions representing over four million people working in professional and technical occupations. DPE-affiliated unions represent: teachers, college professors and school administrators; library workers; nurses, doctors and other health care professionals; engineers, scientists and IT workers; journalists and writers, broadcast technicians and communications specialists; performing and visual artists; professional athletes; professional firefighters; psychologists, social workers and many others. DPE was chartered by the AFL-CIO in 1977 in recognition of the rapidly-growing professional and technical occupations.

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