

# 2008 ASHP Pharmacy Staffing Survey Results

## Background

ASHP has surveyed pharmacy directors since 1999 to determine the supply of and demand for pharmacists and pharmacy technicians in hospitals and health systems, and to measure perceptions about pharmacist workforce shortages. A core set of questions was designed to measure trends, and other questions were added as needed to gather information on staffing-related issues. Beginning in 2007, ASHP discontinued the stand-alone

staffing survey and instead included the core questions in the more comprehensive ASHP National Survey of Pharmacy Practice in Hospitals. This report reflects only the information specific to staffing from that survey. A more complete reporting of data, methodology, and results can be found in the *American Journal of Health-System Pharmacy* (Pedersen CA, Schneider PJ, Scheckelhoff DJ. ASHP National Survey of Pharmacy Practice in Hospital Settings: Dispensing and Administration—2008. *Am J Health-Syst Pharm.* 2009; 66: in press).

While there can be some comparison of results from the annual staffing survey with those from the national survey, the sampling methodologies were different, thus making direct statistical comparison impossible. In addition, in the staffing survey the 2008/2007 data were weighted to represent all general and children's medical surgical hospitals in the United States. This is a different method than what was used in previous staffing surveys (straight averages); therefore, the results may differ slightly.

## Key Findings

- The reported vacancy rate for pharmacist positions in hospitals and health systems was 5.9%, while the vacancy rate for pharmacy technicians was 4.7%.
- The average turnover rate in 2008 was 7.9% for pharmacists and 14.3% for pharmacy technicians.
- Smaller hospitals had more turnover and more vacancies for pharmacists when compared with larger hospitals.
- The number of distributive pharmacist positions declined while the number of integrated pharmacist positions rose in the past year.

## Detailed Results

### Vacancy Rates

The average pharmacist vacancy rate in health systems in 2008 was 5.9%, and the average pharmacy technician vacancy rate was 4.7% (Table 1). These vacancy rates are comparable with 2007 data (Table 2). The average vacancy rate was calculated by dividing the number of vacant full-time equivalent (FTE) positions by the total number of FTE positions.

Smaller hospitals had a greater percentage of vacant pharmacist positions compared with larger hospitals. Smaller hospitals were also likely to have more vacancies for pharmacy technician positions compared with all but the largest hospitals (Table 1).

The trend of pharmacist vacancy rates has remained fairly stable over the past 5 years, with only regional variations being reported (Table 2).

**Table 1. Inpatient Pharmacy Staffing in Prior Fiscal Year**

Characteristic	Mean ±S.E.			
	No. FTE Pharmacists per 100 Occupied Beds	% Vacant FTE Pharmacists Positions <sup>a</sup>	No. FTE Technicians per 100 Occupied Beds	% Vacant FTE Technician Positions
No. staffed beds				
<50 (n=88)	19.9±2.6	7.0	18.2±2.2	6.4
50–99 (n = 76)	13.9±1.9	7.5	14.4±2.5	5.3
100–199 (n = 75)	11.3±0.9	5.7	10.6±0.6	2.1
200–299 (n = 79)	9.8±0.9	5.9	8.5±0.7	4.3
300–399 (n =70)	8.8±0.4	5.1	8.0±0.3	4.3
400–599 (n = 73)	10.6±0.6	6.4	8.8±0.4	5.5
≥600 (n =59)	10.2±0.4	5.5	9.4±0.6	7.6
All hospitals–2008 (n = 520)	14.2±1.0	<b>5.9</b>	13.1±0.9	<b>4.7</b>

<sup>a</sup>FTE = full-time equivalent

**Table 2. Comparison of Vacancy Rates from 1999 to 2008**

	2008 <sup>a</sup>	2007 <sup>a</sup>	2006	2005	2004	2003	2002	2000	1999
Pharmacists									
Vacancy rate	5.9%	6.4%	7.0%	6.2%	5.0%	5.6%	6.9%	8.9%	7.7%
Pharmacy Technicians									
Vacancy rate	4.7%	4.1%	4.2%	3.9%	3.7%	4.3%	4.6%	N/A	N/A

<sup>a</sup>Weighted.

### Turnover Rates

The turnover rate for health-system pharmacist positions in 2008 was 8.6% and 13.8% for pharmacy technicians (Table 3). Both the pharmacist and pharmacy technician turnover rates were comparable with the data obtained from the staffing survey in recent years (Table 4). The turnover rate for pharmacist and pharmacy technicians was calculated by dividing the number of FTE resignations by the total number of FTE positions.

Similar to 2007, larger hospitals reported less pharmacist turnover compared with smaller hospitals. The opposite was true for pharmacy technician staff, with larger hospitals reporting higher turnover compared with smaller hospitals (Table 3).

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**Table 3. Hospital Pharmacy Staff Turnover in Prior Fiscal Year**

Characteristic	Pharmacist Turnover Rate <sup>a</sup>	Pharmacy Technician Turnover Rate <sup>a</sup>
	%	%
<b>Number of staffed beds</b>		
<50	8.8	13.3
50–99	11.3	10.4
100–199	8.4	14.5
200–299	7.5	14.2
300–399	8.3	14.9
400–599	7.2	16.6
≥600	5.9	12.8

<sup>a</sup> Calculated as the number of FTE resignations divided by the total number of FTE positions.

**Table 4. Comparison of Turnover Rates from 2002 to 2008<sup>a</sup>**

	2008 <sup>b</sup>	2007 <sup>b</sup>	2006	2005	2004	2003	2002
Pharmacists							
Turnover rate (%)	8.6	7.6	9.0	8.5	7.5	7.5	8.5
Pharmacy technicians							
Turnover rate (%)	13.8	13.6	12.4	12.9	11.8	13.3	12.3

<sup>a</sup> Calculated as the mean number of resignations divided by the number of currently budgeted positions.

<sup>b</sup> Weighted.

### Time Required to Fill Vacancies

Similar to turnover rates, larger hospitals were able to fill vacancies of pharmacist positions more quickly compared with smaller hospitals. Smaller hospitals also took slightly longer to fill pharmacy technician vacancies (Table 5). The number of months required to fill vacancies of both pharmacist and pharmacy technician positions has also remained stable over recent years (Table 6).

**Table 5. Time Required to Fill Vacancies**

Characteristic	Time to Fill Vacant Pharmacist Positions (months)	Time to Fill Vacant Pharmacy Technician Positions (months)
	Mean	Mean
<b>Number of staffed beds</b>		
<50	9.8	2.3
50–99	6.5	2.0
100–199	7.2	1.9
200–299	6.2	1.7
300–399	5.1	1.7
400–599	5.4	1.9
≥600	5.5	2.1

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**Table 6. Comparison of Time Required to Fill Vacancies from 2002 to 2008**

	2008 <sup>a</sup>	2007 <sup>b</sup>	2006	2005	2004	2003	2002
Pharmacists	7.0	-	6.0	6.5	5.3	5.8	5.7
Pharmacy technicians	2.0	-	1.8	1.8	1.8	1.9	1.8

<sup>a</sup> Weighted.

<sup>b</sup> Data was not collected.

### Perceptions of Supply and Demand

Subjective answers from pharmacy directors when questioned about the relative availability of pharmacists and pharmacy technicians show that there continues to be a perception of an overall shortage (Tables 7 and 8). Table 7 shows that the positions reflecting the most significant level of perceived shortage were pharmacy management positions (over 90%) and experienced frontline pharmacists (89%). Clinical positions, entry-level frontline pharmacists, and experienced pharmacy technicians were considered to be in a shortage situation by 70–75% of pharmacy directors, while entry-level pharmacy technician positions were considered more balanced. Based on the rate of moderate to severe perceived shortage that has been reported over recent years, filling pharmacy manager positions has grown in difficulty, while pharmacy technician positions have eased slightly in their difficulty to fill (Table 8).

**Table 7. 2008 Pharmacy Directors' Perceptions of Availability**

Pharmacy Position	Perceived Shortage	Perceived Balance	Perceived Excess
	%	%	%
Manager (director/assistant director/supervisor)	90.3	8.8	0.9
Clinical coordinator	72.1	22.8	5.1
Clinical specialist	70.2	23.1	6.7
Entry-level frontline pharmacist	75.2	23.3	1.5
Experienced frontline pharmacist	89.0	9.9	1.1
Entry-level pharmacy technician	24.8	52.5	22.7
Experienced pharmacy technician	67.0	28.2	4.8

**Table 8. Comparison of Pharmacy Directors' Perceptions of Availability from 2002 to 2008<sup>a</sup>**

Pharmacy Position	2008	2007 <sup>b</sup>	2006	2005	2004	2003	2002
Manager (director/assistant director/supervisor)	90	-	87	84	74	74	74
Clinical coordinator <sup>c</sup>	72	-	65	67	-	-	-
Clinical specialist	70	-	63	64	67	71	71
Entry-level frontline pharmacist	75	-	71	71	75	84	84
Experienced frontline pharmacist	89	-	93	89	90	93	93
Entry-level pharmacy technician	25	-	17	21	22	31	31
Experienced pharmacy technician	67.0	-	87	69	74	77	77

<sup>a</sup> Represents responses of a perceived “moderate” or “severe” shortage combined.

<sup>b</sup> Data was not collected.

<sup>c</sup> The position of clinical coordinator was added to the survey in 2005.

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### FTE Positions for Pharmacy

The number of pharmacists, pharmacy technicians, and other support staff positions classified as FTE per every 100 occupied beds is shown in Table 9. It is noteworthy that while management and clinical positions have not changed appreciably in the past year, the number of distributive pharmacist positions has declined and the number of integrated pharmacist positions has increased. Also, the number of pharmacy resident positions has increased. These findings are consistent with anecdotal data on how pharmacists are being deployed in individual hospital practice models and consistent with residency accreditation data.

**Table 9. Number of FTE Pharmacy Positions per 100 Occupied Beds by Type of Position**

		Management Pharmacists	Clinical Pharmacists	Distributive Pharmacists	Integrated Pharmacists	Informatics Pharmacists	Medication-Use Safety Coordinator Pharmacist	Other Pharmacists	Residents	TOTAL Pharmacists	TOTAL Pharmacy Technicians	TOTAL Other Support Staff
Characteristic	n	Mean FTE's per 100 Occupied Beds										
Staffed beds												
<50	87	4.80	0.97	3.23	10.61	0.18	0.13	0.03	0.00	19.9	18.2	0.37
50–99	75	2.44	1.08	2.81	6.10	0.09	0.04	0.02	0.77	13.9	14.4	0.25
100–199	75	1.63	1.31	3.27	4.74	0.20	0.08	0.03	0.08	11.3	10.6	0.36
200–299	79	1.12	0.94	2.25	4.88	0.20	0.06	0.08	0.17	9.8	8.5	0.58
300–399	69	0.99	1.38	2.74	3.09	0.23	0.07	0.09	0.24	8.8	8.0	0.86
400–599	73	1.26	1.61	3.15	3.25	0.22	0.13	0.37	0.64	10.6	8.8	0.77
≥600	58	0.93	1.85	2.63	3.66	0.19	0.09	0.22	0.79	10.2	9.4	0.80
All hospitals in 2008	516	2.67	1.15	2.99	6.71	0.18	0.09	0.07	0.23	14.2	13.1	0.45
All hospitals in 2007	501	2.66	1.14	3.26	5.51	0.26	0.13	0.13	0.11	13.2	13.0	1.05

**For more information regarding this survey and other workforce/staffing data from ASHP, please email [quality@ashp.org](mailto:quality@ashp.org).**