

Working Paper #93

**Washington State Hospitals:
Results of
2003/04 Workforce Survey**

October 2004

by

Susan M. Skillman, MS

C. Holly A. Andrilla, MS

Troy Hutson, RN, JD

Heather Deacon

Tina Praseuth

This study was performed by the WWAMI Center for Health Workforce Studies (CHWS) and the Health Work Force Institute (HWFI) of the Washington State Hospital Association. The WWAMI CHWS efforts were supported by the National Center for Health Workforce Analysis (NCHWA), Bureau of Health Professions (BHP), Health Resources and Services Administration (HRSA) through grant #1 U79 HP 00007-0—a Congressional appropriation to CHWS for collection and analysis of health workforce data in Washington State. Data collection was conducted by the HWFI, and survey methods development, data coding and entry, and data analysis was conducted by the CHWS. The authors want to acknowledge the considerable time and effort that hospital respondents contributed to this survey. In addition, they want to thank Ed Phippen at the HWFI and Martha Reeves and Thao Nguyen of the CHWS for their valuable assistance.



ABOUT THE WORKFORCE CENTER

The WWAMI Center for Health Workforce Studies at the University of Washington Department of Family Medicine is one of six regional centers funded by the National Center for Health Workforce Analysis (NCHWA) of the federal Bureau of Health Professions (BHP), Health Resources and Services Administration (HRSA). Major goals are to conduct high-quality health workforce research in collaboration with the BHP and state agencies in Washington, Wyoming, Alaska, Montana, and Idaho (WWAMI); to provide methodological expertise to local, state, regional, and national policy makers; to build an accessible knowledge base on workforce methodology, issues, and findings; and to provide wide dissemination of project results in easily understood and practical form to facilitate appropriate state and federal workforce policies.

The Center brings together researchers from medicine, nursing, dentistry, public health, the allied health professions, pharmacy, and social work to perform applied research on the distribution, supply, and requirements of health care providers, with emphasis on state workforce issues in underserved rural and urban areas of the WWAMI region. Workforce issues related to provider and patient diversity, provider clinical care and competence, and the cost and effectiveness of practice in the rapidly changing managed care environment are emphasized.

The WWAMI Rural Health and Health Workforce Research Center Working Paper Series is a means of distributing prepublication articles and other working papers to colleagues in the field. Your comments on these papers are welcome and should be addressed directly to the authors. Questions about the WWAMI Center for Health Workforce Studies should be addressed to:

L. Gary Hart, PhD, Director and Principal Investigator
Susan Skillman, MS, Deputy Director
Roger Rosenblatt, MD, MPH, Co-Investigator
Laura-Mae Baldwin, MD, MPH, Co-Investigator
Denise Lishner, MSW, Center Research Coordinator
Eric Larson, PhD, Senior Researcher
Martha Reeves, Working Paper Layout and Production
University of Washington
Department of Family Medicine
Box 354982
Seattle, WA 98195-4982
Phone: (206) 685-6679
Fax: (206) 616-4768
E-mail: deac@fammed.washington.edu
Web Site: <http://www.fammed.washington.edu/CHWS/>

The WWAMI Center for Health Workforce Studies receives core support from the Bureau of Health Professions' National Center for Health Workforce Information and Analysis. Grant No. 1U76-MB-10006-03; \$250,000; 100%.

ABOUT THE AUTHORS

SUSAN M. SKILLMAN, MS, is the Deputy Director of the WWAMI Center for Health Workforce Studies, Department of Family Medicine, University of Washington School of Medicine.

C. HOLLY A. ANDRILLA, MS, is a biostatistician for the WWAMI Center for Health Workforce Studies, Department of Family Medicine, University of Washington School of Medicine.

TROY HUTSON, RN, JD, is Executive Director of the Health Work Force Institute, which is affiliated with the Washington State Hospital Association.

HEATHER DEACON was the Program Coordinator for the WWAMI Center for Health Workforce Studies, Department of Family Medicine, University of Washington School of Medicine, at the time of this study.

TINA PRASEUTH is Executive Coordinator of the Health Work Force Institute at the Washington State Hospital Association.

Washington State Hospitals: Results of 2003/04 Workforce Survey

SUSAN M. SKILLMAN, MS
C. HOLLY A. ANDRILLA, MS
TROY HUTSON, RN, JD
HEATHER DEACON
TINA PRASEUTH

ABSTRACT

BACKGROUND

The University of Washington Center for Health Workforce Studies and the Washington State Hospital Association's Health Work Force Institute collaborated in a staffing survey of Washington's non-federal acute care hospitals.

METHODS

Eighty-eight hospitals were mailed a five-page questionnaire about employment and contracting of 21 occupations, and 81 percent of the hospitals responded.

MAJOR FINDINGS

- Statewide, nursing has the most vacancies—1,772. But the staff nurse vacancy rate dropped from 10.1 percent in 2002 to 6.2 percent in 2004.
- The highest vacancy rates are for occupational therapists (13.5%), physical therapists (11.7%), ultrasound technologists (10.3%), and nuclear medicine technologists (9.6%).
- While all regions of the state cited difficulty recruiting some hospital staff, not all regions are having problems with the same occupations.
- Anesthesiologists and radiologists are the physician types most difficult to recruit.

POLICY IMPLICATIONS

Workforce shortages are lessening among hospitals in Washington. It is not clear whether this is the result of changes in economic conditions or an increase in provider supply. But because there remain shortages for many hospital occupations and the average age of most of these workers is rising, close attention should continue to be paid to the trends among the hospital workforce.

BACKGROUND

Health care is one of the largest employment sectors in the state, and hospitals comprise a significant portion of that sector. Thirty-eight percent of Washington State's health services employees work in the non-federal hospitals in the state (U.S. Bureau of Labor Statistics, 2000). Hospitals in Washington State, like the rest of the U.S., have experienced shortages of health care professionals in recent years. Since 2001 these shortages have been documented by surveys jointly conducted by the Center for Health Workforce Studies (CHWS) and the Washington State Hospital Association (WSHA) (Skillman et al., 2002, 2003). A third survey of the non-federal acute care hospitals in Washington was launched in the spring of 2004. The results of that survey are the subject of this report.

METHODS

This mailed survey of acute care hospitals in Washington State was conducted from April through July 2004. The Health Work Force Institute (HWFI) of the WSHA mailed the survey questionnaire to the human resources directors of the 88 non-federal acute care hospitals in the state. At the same time, the HWFI sent a letter describing the survey to the CEO and nursing director of each hospital. Approximately two weeks after the first mailing, the HWFI sent a second questionnaire to non-responding hospitals. Several weeks after the second mailing, non-respondents were contacted with telephone and e-mail reminders to complete the questionnaire. The resulting responses were coded, entered into computer files, and analyzed by CHWS. The survey design and analysis were supported with CHWS funding from HRSA's National Center for Health Workforce Information through a Congressional appropriation to collect and analyze health workforce data in Washington State. The data collection was supported by resources of the HWFI.

QUESTIONNAIRE

A five-page questionnaire (see Appendix A) was developed and revised based on the previous year's questionnaire and input from the WSHA Personnel Shortage Task Force. The questionnaire asked for descriptive information about the hospital's employment and contracting statistics for 21 occupational categories, information about the hospital's level of difficulty recruiting these staff, and a set of questions about the hospital's level of difficulty recruiting physicians to practice in their facility. A question about whether the hospital diverted patients due to nurse shortages that was included in the 2001/02 survey was repeated on the 2003/04 questionnaire.

WORKFORCE DEVELOPMENT AREAS

When possible, analysis of the data was conducted at the workforce development area (WDA) level. Washington State is divided into 12 WDAs that receive federal and state funding for workforce planning. Each WDA is composed of one or more counties (see Figure 1).

IMPUTING VALUES FOR NON-RESPONDENTS

To estimate the total number of employed staff and full-time equivalents (FTEs), and the number of vacancies in the state and within WDAs, it was

necessary to impute values for non-responding hospitals. All hospitals in the sample (respondents and non-respondents) were grouped into one of four hospital size categories based on the number of licensed acute care beds operated by the facility: smallest (fewer than 50 beds), small (50-99 beds), medium (100-250 beds) and large (more than 250 beds). Bed size for non-responding hospitals was obtained from WSHA records. The values for non-respondents were imputed by applying the mean value obtained from responding hospitals in each size category to each of the non-respondent hospitals. For occupations not employed by all hospitals (e.g., nuclear medicine technologist, physician assistant), the imputed values for employment and vacancies were downweighted by the ratio, calculated for each hospital size category, of [(respondents who indicated they employed the occupation)/(total number of question respondents)].

ESTIMATING NUMBER OF EMPLOYEES NEEDED TO FILL FTE VACANCIES

The questionnaire asked for the number of vacant FTEs being actively recruited for each occupation. To estimate the number of persons needed to fill the vacant FTEs, a persons-per-FTE rate was calculated for each occupation. The number of persons employed

Figure 1: Workforce Development Areas in Washington State



was divided by the number of FTEs employed for each occupation, using data from hospitals that provided responses to both questions. This rate was then multiplied by the total estimated vacant FTEs for each occupation to estimate the number of employees needed to fill the FTE vacancies.

CALCULATING VACANCY RATES

Vacancy rates can be calculated in several different ways. This study used two methods: (1) **overall FTE vacancies** and (2) **average hospital vacancies**. The first method sums all vacant FTEs reported for an occupation for the region being examined and divides

that number by the total budgeted FTEs reported. If budgeted FTEs were not reported for an individual hospital, that number was imputed by adding employed FTEs to vacant FTEs. The second method, average hospital vacancy rate, is the mean of individual hospitals' vacancy rates. For this method, the vacant FTE value for each hospital is divided by the budgeted FTEs (reported or imputed), and these rates are added together and the sum is divided by the number of hospitals for which the rates are obtained. Hospitals included in both vacancy rate calculations were limited to those providing both numerator (vacant FTEs) and denominator (budgeted FTEs or imputed budgeted FTEs) data.

RESULTS

DESCRIPTION OF RESPONDENTS

The survey yielded a response from 71, or 80.7 percent, of the non-federal acute care hospitals in Washington. Table 1 shows response rates and characteristics of the responding hospitals, overall and by size.

Table 1: Response Rates and Characteristics of Washington Hospitals: Overall and by Hospital Size

	Overall	Smallest (< 50 beds)	Small (50-99 beds)	Medium (100-250 beds)	Large (> 250 beds)
Surveyed hospitals	88	38	11	22	17
Responding hospitals	71 (80.7%)	33 (86.8%)	7 (63.6%)	15 (68.2%)	16 (94.1%)
Average number of acute care beds (# responses to question)	148 (71)	26 (33)	62 (7)	157 (15)	429 (16)
Average daily midnight census (# responses to question)	76.6 (67)	7.4 (31)	25.0 (7)	68.4 (15)	264.4 (14)
Average number of licensed long term care beds (# responses to question)	8 (68)	12 (33)	0 (6)	11 (15)	0 (14)
Average number of persons on payroll* (# responses to question)	1,057 (70)	185 (33)	387 (7)	1,048 (14)	3,158 (16)
Location:					
Rural**	47 (53%)	32 (84%)	8 (73%)	7 (32%)	0 (0%)
Urban	41 (47%)	6 (16%)	3 (27%)	15 (68%)	17 (100%)

* Facility-wide.

** Rural-urban areas were determined using Rural-Urban Commuting Area Classification (Morrill et al., 1999) based on ZIP codes.

WDA response rates ranged from 50 percent (one region) to 100 percent (in three regions). The region with a 50 percent response rate, WDA #7, has only two hospitals. In order to retain respondent confidentiality, results by WDA #7 will not be shown in this report except where values for non-respondents are imputed. Table 2 shows survey response rates by WDA.

RECRUITMENT DIFFICULTY

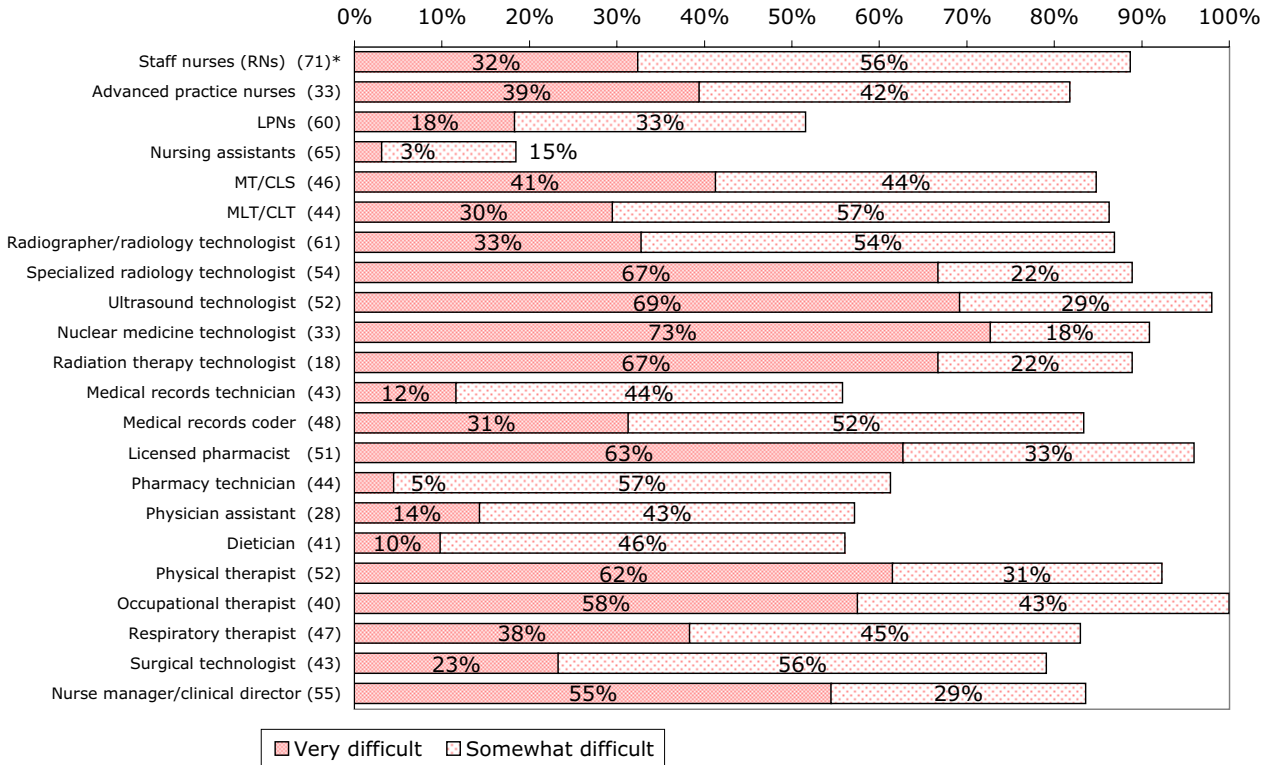
Hospitals were asked how difficult it was to recruit employees to fill vacant positions. For those hospitals responding that they employ the occupation type, and have recruited recently, the results for 21 occupation types are shown in Figure 2. This question was also asked about “nurse managers” – a job category not previously included in the questionnaire. The 2003/04 results compared to previous years are shown in Figures 2 through 7. In general, the occupations are similarly difficult, or easier to recruit than in the previous two years, with the exception of physical therapists, occupational therapists and respiratory therapists, which have become more difficult to recruit.

Table 2: Hospital Survey Response by Workforce Development Area

	Workforce Development Area*											
	1	2	3	4	5	6	7	8	9	10	11	12
2004 surveyed hospitals	4	9	5	4	16	5	2	13	7	13	4	6
Responding hospitals	4	8	3	2	13	5	1	12	5	9	3	6
Response rate	100%	89%	60%	50%	81%	100%	50%	92%	71%	69%	75%	100%
<i>Previous survey response rates:</i>												
2002/03	100%	67%	100%	60%	79%	100%	100%	85%	86%	77%	100%	100%
2001/02	75%	67%	100%	100%	64%	100%	100%	83%	86%	77%	100%	100%

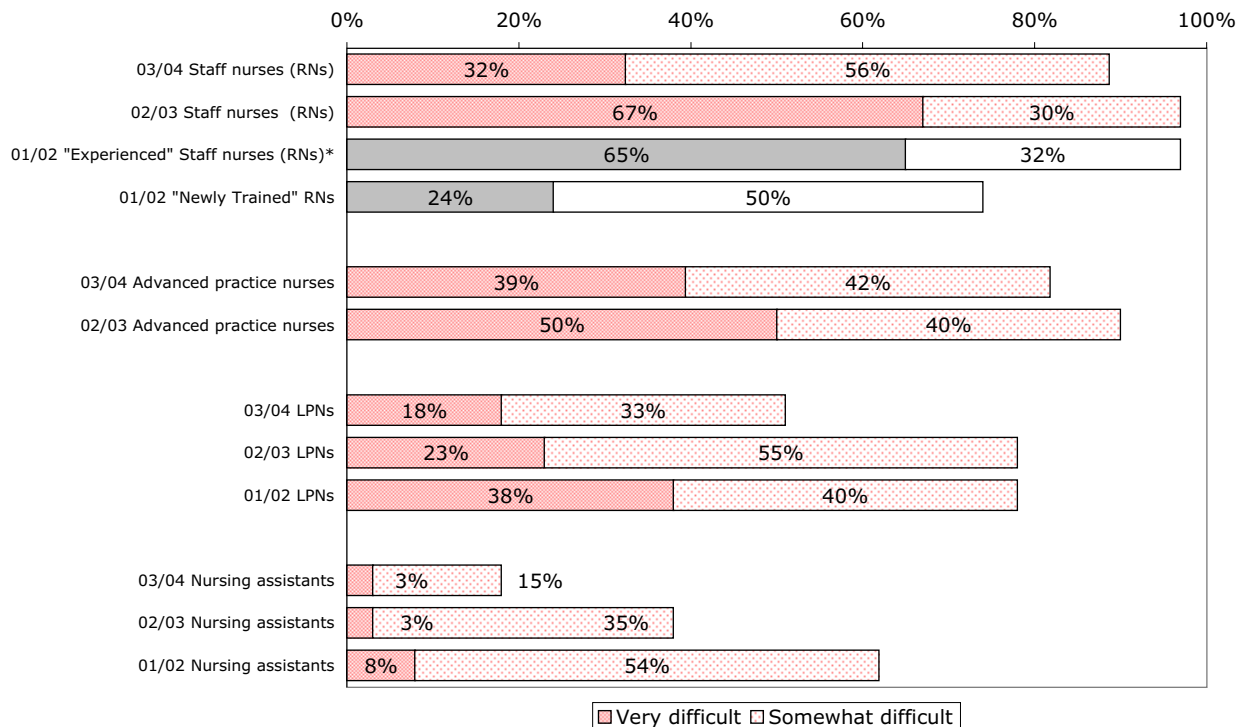
- * 1. Olympic Peninsula (Clallam, Jefferson, Kitsap counties)
 2. Pacific Mountain (Grays Harbor, Lewis, Mason, Pacific, Thurston counties)
 3. Northwest (Island, San Juan, Skagit, Whatcom counties)
 4. Snohomish county
 5. Seattle/King county
 6. Tacoma/Pierce county
 7. Southwest (Clark, Cowlitz, Skamania, Wahkiakum counties)
 8. N. Central (Adams, Chelan, Douglas, Grant, Okanogan counties)
 9. Central (Kittitas, Klickitat, Yakima counties)
 10. Eastern (Asotin, Columbia, Ferry, Garfield, Lincoln, Pend Oreille, Stevens, Walla Walla, Whitman counties)
 11. Benton, Franklin counties
 12. Spokane county

Figure 2: Difficulty Recruiting by Occupation: Washington Hospitals 2003/04



* Number of hospitals indicating they employ the occupation type and have recently recruited.

Figure 3: Difficulty Recruiting in Washington Hospitals 2001/02, 2002/03, and 2003/04: Nursing Occupations



* In 2001-02 this question was asked separately for "experienced RNs" and "newly trained RNs."

Figure 4: Difficulty Recruiting in Washington Hospitals 2001/02, 2002/03, and 2003/04: Laboratory and Medical Records Occupations

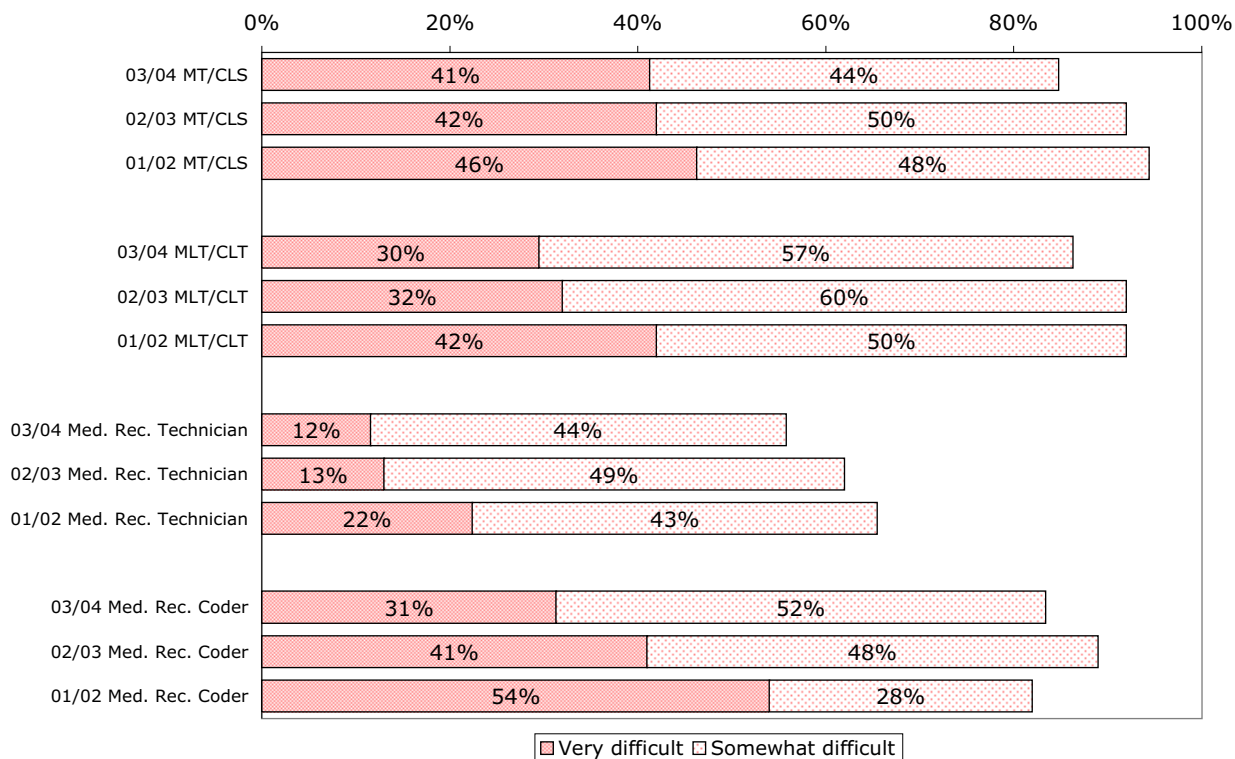


Figure 5: Difficulty Recruiting in Washington Hospitals 2001/02, 2002/03, and 2003/04: Radiography Occupations

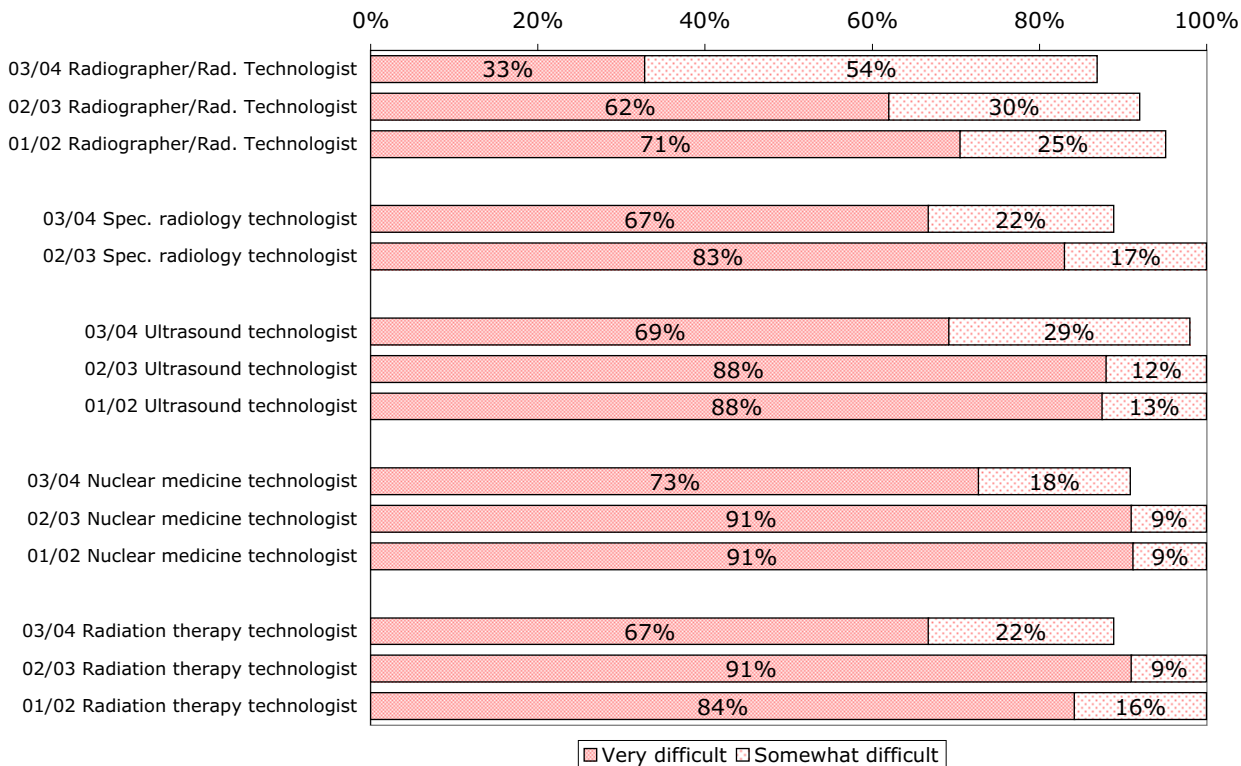


Figure 6: Difficulty Recruiting in Washington Hospitals 2001/02, 2002/03, and 2003/04: Pharmacy Occupations

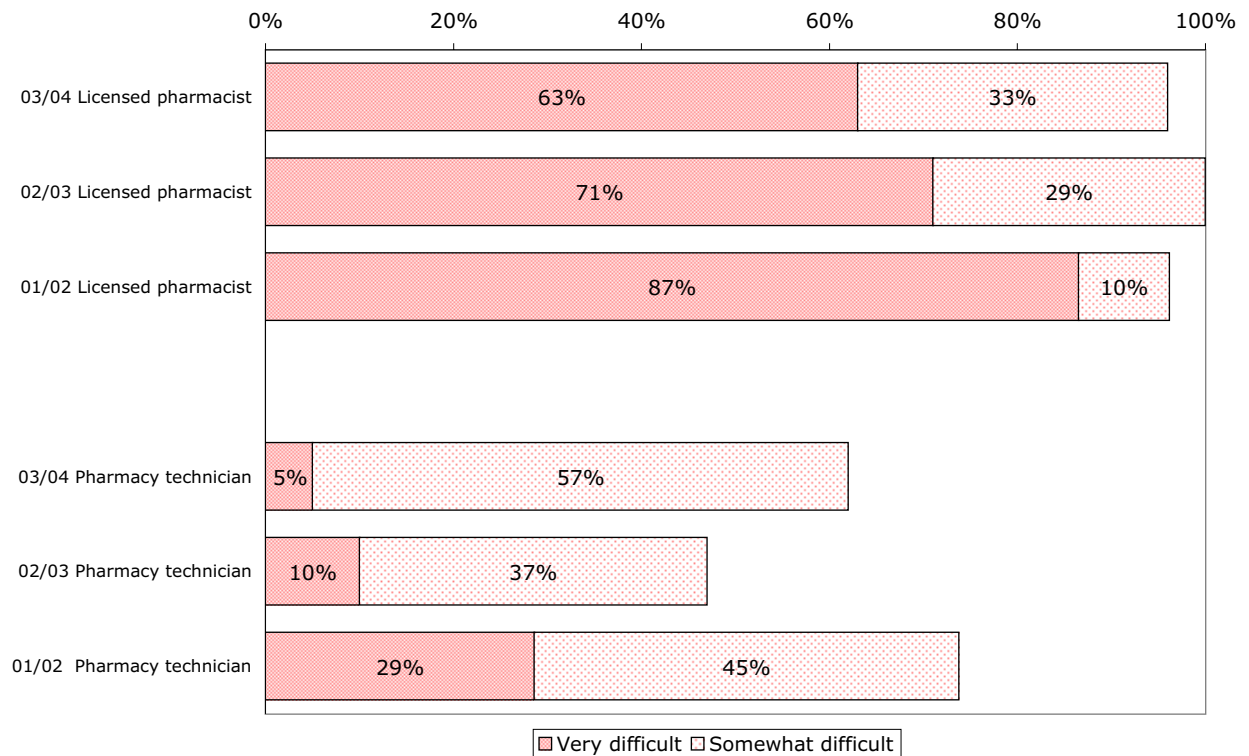
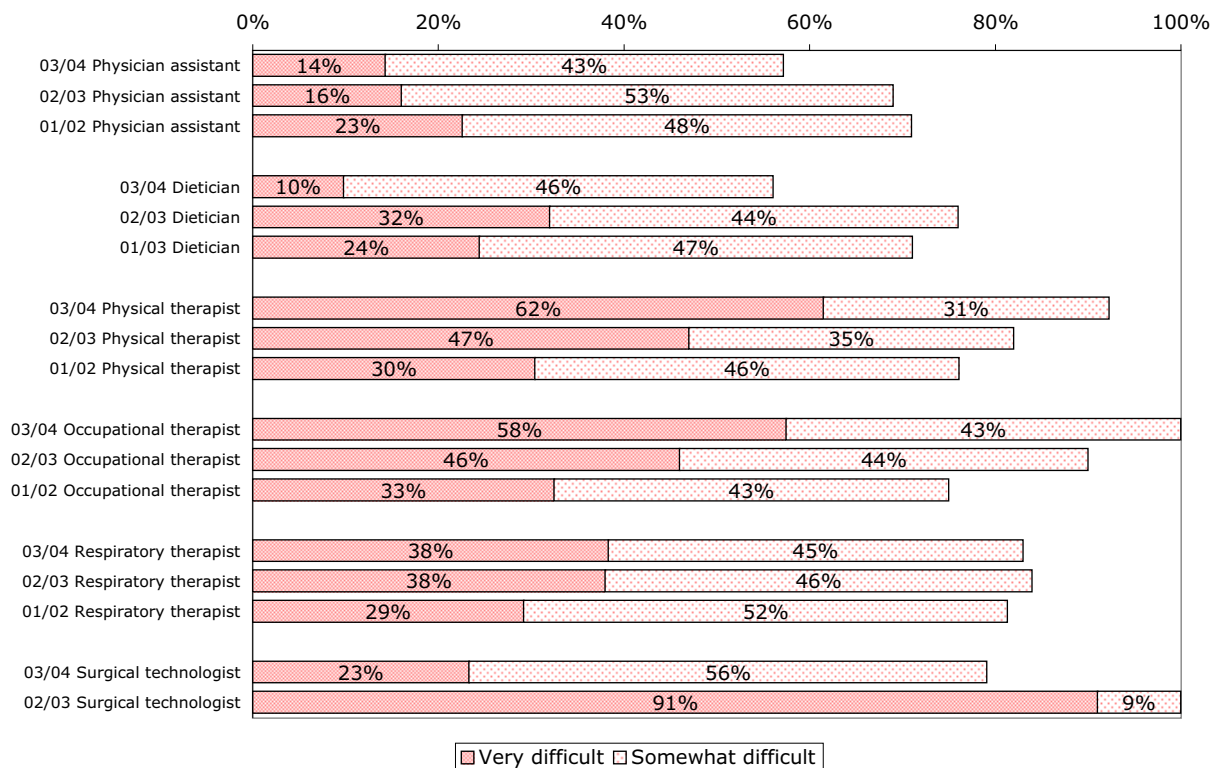


Figure 7: Difficulty Recruiting in Washington Hospitals 2001/02, 2002/03, and 2003/04: Other Occupations



The level of recruitment difficulty for most hospital occupations varies across the state, as can be seen from results of this survey by WDA in Figure 8. As has been the case for the past three years, specialized radiography professions (specialized radiology technologists, ultrasound technologists, nuclear medicine technologists and radiation therapy technologists) appear to be the most difficult to recruit (among those hospitals that employ the occupations) across all regions of the state. Physical therapists, occupational therapists, nurse managers/clinical directors, and licensed pharmacists are other occupations for which the majority of hospitals in over two thirds of the WDAs report to be “very difficult” to recruit.

EMPLOYMENT AND VACANCIES

Hospital respondents were asked to provide numbers of staff employed, full-time equivalents (FTEs) employed, FTEs budgeted, and FTEs vacant for 21 occupations in their acute care facilities. Total employees and vacancies were estimated (Table 3) using these reported numbers and imputed values for non-respondents.

Table 3: Estimated Number of Persons Employed in Washington’s Hospitals in 2003/04, by Occupation

Occupation	Percentage of Hospitals Employing the Occupation	Persons Employed (est.*)	FTEs Employed (est.*)
Staff nurses (RNs)	100%	25,412	16,653
Advanced practice nurses	37%	493	386
Licensed practical nurses (LPNs)	89%	1,978	1,367
Nursing assistants	86%	4,554	3,534
Medical technicians/clinical lab scientists	68%	1,405	1,029
Medical/clinical lab technologists	66%	672	533
Radiographers/radiology technologists	89%	1,138	869
Specialized radiology technologists (CT, MRI)	73%	860	717
Ultrasound technologists	72%	418	300
Nuclear medicine technologists	54%	213	174
Radiation therapy technologists	22%	159	146
Medical records technicians	65%	704	539
Medical records coders	87%	511	439
Licensed pharmacists	82%	1,148	821
Pharmacy technicians	70%	1,157	841
Physician assistants	48%	169	124
Dieticians	70%	383	240
Physical therapists	75%	1,020	693
Occupational therapists	65%	533	348
Respiratory therapists	76%	1,419	944
Surgical technologists	78%	1,315	904

* Number reported plus number imputed for non-responding hospitals.

Figure 8: Difficulty of Recruiting Employees in Washington Hospitals in 2003/04, by Occupation and Workforce Development Area

	1	2	3	4	5	6	7	8	9	10	11	12
Staff nurses (RNs)							**					
Advanced practice nurses							**					
Licensed practical nurses (LPNs)							**					
Nursing assistants							**					
Medical technician/clinical lab scientists							**					
Medical/clinical lab technologists							**					
Radiographer/radiology technologists							**					
Specialized radiology technologists							**					
Ultrasound technologists							**					
Nuclear medicine technologists							**					
Radiation therapy technologists							**					
Medical records technicians			NA				**		NA		NA	
Medical records coders							**					
Licensed pharmacists							**					
Pharmacy technicians			NA				**					
Physician assistants							**					
Dietitians							**					
Physical therapists							**					
Occupational therapists							**					
Respiratory therapists							**					
Surgical technologists							**					
Nurse managers/clinical directors							**					

Key:

- 100% of hospitals (that employ the occupation) reported recruitment as "very difficult"
- 50-99% of hospitals (that employ the occupation) reported recruitment as "very difficult"
- < 50% of hospitals (that employ the occupation) report recruitment as "very difficult"
- < 50% of hospitals (that employ the occupation) reported recruitment as "very difficult"
- Not applicable because all reporting hospitals do not employ and/or have not recruited recently

- * 1. Olympic Peninsula (Clallam, Jefferson, Kitsap counties)
- 2. Pacific Mountain (Grays Harbor, Lewis, Mason, Pacific, Thurston counties)
- 3. Northwest (Island, San Juan, Skagit, Whatcom counties)
- 4. Snohomish county
- 5. Seattle/King county
- 6. Tacoma/Pierce county
- 7. Southwest (Clark, Cowlitz, Skamania, Wahkiakum counties)
- ** Data censored because of low response rate in this region.
- 8. N. Central (Adams, Chelan, Douglas, Grant, Okanogan counties)
- 9. Central (Kittitas, Klickitat, Yakima counties)
- 10. Eastern (Asotin, Columbia, Ferry, Garfield, Lincoln, Pend Oreille, Stevens, Walla Walla, Whitman counties)
- 11. Benton, Franklin counties
- 12. Spokane county

Table 4 shows estimated FTEs vacant, the ratio of persons employed per FTE employed, and the estimated number of persons required to fill the vacancies, for each occupation type. The number of persons needed that were estimated by the 2002/03 Washington hospital survey (Skillman et al., 2003) are also shown in Table 4. Approximately 1,772 RNs would be needed to fill all of the hospital staff nurse vacancies in the state in 2004. While large, that number is down by 97 from the prior year. Table 5 shows estimated persons needed within each WDA for each of the 21 occupation types.

Table 4: Estimated Number of FTEs Vacant, Ratio of Persons/FTEs Employed, and Persons Required to Fill Vacancies in Washington's Hospitals in 2003/04, by Occupation

Occupation	2003/04 Survey			Comparison with 2002/03 Survey
	FTEs Vacant (est.*)	Ratio Persons/FTE Employed	Persons Needed (est.**)	Persons Needed (est.**)
Staff nurses (RNs)	1,158	1.53	1,772	1,869
Advanced practice nurses	28	1.35	38	24
Licensed practical nurses (LPNs)	59	1.47	87	171
Nursing assistants	176	1.32	231	160
Medical technicians/clinical lab scientists	52	1.33	69	65
Medical/clinical lab technologists	43	1.29	56	20
Radiographers/radiology technologists	53	1.32	70	130
Specialized radiology technologists (CT, MRI)	41	1.19	49	56
Ultrasound technologists	33	1.39	46	52
Nuclear medicine technologists	18	1.21	22	24
Radiation therapy technologists	8	1.17	9	6
Medical records technicians	21	1.14	23	13
Medical records coders	14	1.16	17	16
Licensed pharmacists	47	1.14	53	111
Pharmacy technicians	37	1.39	51	33
Physician assistants	7	1.35	9	10
Dieticians	5	1.64	9	9
Physical therapists	95	1.56	148	84
Occupational therapists	47	1.64	78	26
Respiratory therapists	56	1.52	86	68
Surgical technologists	44	1.53	68	46

* Number reported plus number imputed for non-responding hospitals.

** Estimated FTEs vacant multiplied by the ratio of persons/FTE employed.

Table 5: Estimated* Number of Persons Needed to Fill Vacancies in Washington’s Hospitals, by WDA and Occupation

	Persons Needed (est.)											
	1	2	3	4	5	6	7	8	9	10	11	12
Staff nurses (RNs)	79	154	141	106	546	166	93	66	91	89	57	184
Advanced practice nurses	3	3	5	3	14	5	3	0	0	0	0	3
LPNs	3	9	6	6	18	7	4	4	9	10	6	6
Nursing assistants	10	18	17	14	62	18	10	16	14	23	8	23
MT/CLS	1	6	6	5	20	6	4	4	3	4	1	9
MLT/CLT	2	6	3	4	18	4	4	3	3	2	2	6
Radiographer/radiology technologist	3	6	6	4	21	6	3	4	4	4	2	5
Specialized radiology technologist (e.g., MRI, CT)	3	4	5	3	18	5	3	1	2	1	1	5
Ultrasound technologist	2	4	3	3	13	4	2	2	3	3	2	3
Nuclear medicine technologist	1	2	2	1	8	2	1	0	1	0	1	2
Radiation therapy technologist	0	0	1	1	1	0	0	1	0	4	0	0
Medical Records Technicians	1	0	3	1	8	3	1	1	0	1	0	4
Coders	1	2	1	1	4	1	1	1	1	2	1	1
Licensed pharmacists	2	4	4	3	16	5	3	1	3	3	2	6
Pharmacy technicians	3	5	4	3	14	4	3	3	3	4	3	3
Physician assistants	1	0	1	1	3	1	1	1	0	1	0	0
Dieticians	0	1	1	1	2	1	0	1	0	1	0	0
Physical therapists	8	11	12	10	42	15	8	11	8	11	6	6
Occupational therapists	4	5	8	5	28	8	4	3	2	4	2	4
Respiratory therapists	4	6	8	5	25	7	4	2	5	8	3	10
Surgical technologists	3	6	6	4	19	6	3	4	4	5	1	7

* Using estimated FTEs needed to fill vacancies multiplied by the ratio of persons per FTEs employed for each occupation type.

- | | |
|--|--|
| 1. Olympic Peninsula (Clallam, Jefferson, Kitsap counties) | 8. N. Central (Adams, Chelan, Douglas, Grant, Okanogan counties) |
| 2. Pacific Mountain (Grays Harbor, Lewis, Mason, Pacific, Thurston counties) | 9. Central (Kittitas, Klickitat, Yakima counties) |
| 3. Northwest (Island, San Juan, Skagit, Whatcom counties) | 10. Eastern (Asotin, Columbia, Ferry, Garfield, Lincoln, Pend Oreille, Stevens, Walla Walla, Whitman counties) |
| 4. Snohomish county | 11. Benton, Franklin counties |
| 5. Seattle/King county | 12. Spokane county |
| 6. Tacoma/Pierce county | |
| 7. Southwest (Clark, Cowlitz, Skamania, Wahkiakum counties) | |

Table 6 shows vacancy rates (both overall rates and average hospital rates) by occupation type for 2003/04, and shows the comparison overall vacancy rate from the 2002/03 survey. The highest overall rates in 2003/04 are for occupational therapists (13.5%), physical therapists (11.7%), ultrasound technologists (10.3%), and nuclear medicine technologists (9.6%). Vacancy rates have decreased from the prior year for 14 of the 21 occupation types. The statewide staff nurse vacancy rate dropped by 1.2 percentage points, to 6.2 percent.

The 2001/02 survey was focused on nursing, and did not obtain detailed staffing data for other occupation types (Skillman et al., 2002). But for staff nurses, overall vacancy rates are available from this survey, providing three years of vacancy rate data, as shown on the graph in Figure 9. Since the 2001/02 survey was conducted, overall staff nurse vacancies have dropped by 3.9 percentage points.

Figure 10 shows the decrease in the estimated number of RNs required to fill staff nurse vacancies since 2002.

Table 6: Vacancy Rates in Washington’s Hospitals in 2003/04, by Occupation, with Comparison to 2002/03 Survey Results

Occupation	N*	2003/04 Survey		Comparison with 2002/03 Survey	
		Average Hospital Vacancy Rate**	Overall Vacancy Rate***	Overall Vacancy Rate***	Percentage Point Difference 2003/04-2002/03
Staff nurses (RNs)	63	10.1%	6.2%	7.4%	-1.2%
Advanced practice nurses	21	5.8%	5.4%	4.4%	1.0%
Licensed practical nurses (LPNs)	54	3.6%	3.4%	9.2%	-5.8%
Nursing assistants	52	7.8%	4.7%	5.5%	-0.8%
Medical technicians/clinical lab scientists	41	4.9%	4.1%	4.7%	-0.6%
Medical/clinical lab technologists	36	6.4%	6.5%	4.4%	2.1%
Radiographers/radiology technologists	54	7.1%	5.8%	11.3%	-5.5%
Specialized radiology technologists (CT, MRI)	44	3.1%	5.4%	7.1%	-1.7%
Ultrasound technologists	43	11.0%	10.3%	14.3%	-4.0%
Nuclear medicine technologists	31	7.8%	9.6%	10.9%	-1.3%
Radiation therapy technologists	11	4.0%	3.0%	4.7%	-1.7%
Medical records technicians	39	2.4%	2.3%	2.0%	0.3%
Medical records coders	51	3.5%	2.9%	3.3%	-0.4%
Licensed pharmacists	49	5.7%	4.4%	8.4%	-4.0%
Pharmacy technicians	41	7.4%	3.3%	2.6%	0.7%
Physician assistants	28	6.0%	5.3%	7.8%	-2.5%
Dieticians	41	2.2%	2.3%	2.4%	-0.1%
Physical therapists	46	16.7%	11.7%	8.0%	3.7%
Occupational therapists	36	16.1%	13.5%	5.5%	8.0%
Respiratory therapists	48	4.2%	5.6%	5.4%	0.2%
Surgical technologists	47	7.3%	4.4%	4.6%	-0.2%

* Number of hospitals providing both numerator (total vacant FTEs) and denominator (total budgeted FTEs, or total employed plus total vacant FTEs) data.

** The average of each individual hospital's vacancy rate.

*** Overall vacancy rate is calculated $[(\text{total vacant FTEs for all hospitals})/(\text{total budgeted FTEs for all hospitals})]$.

Figure 9: Staff Nurse Overall Vacancy Rates: Washington Hospitals 2001/02 through 2003/04

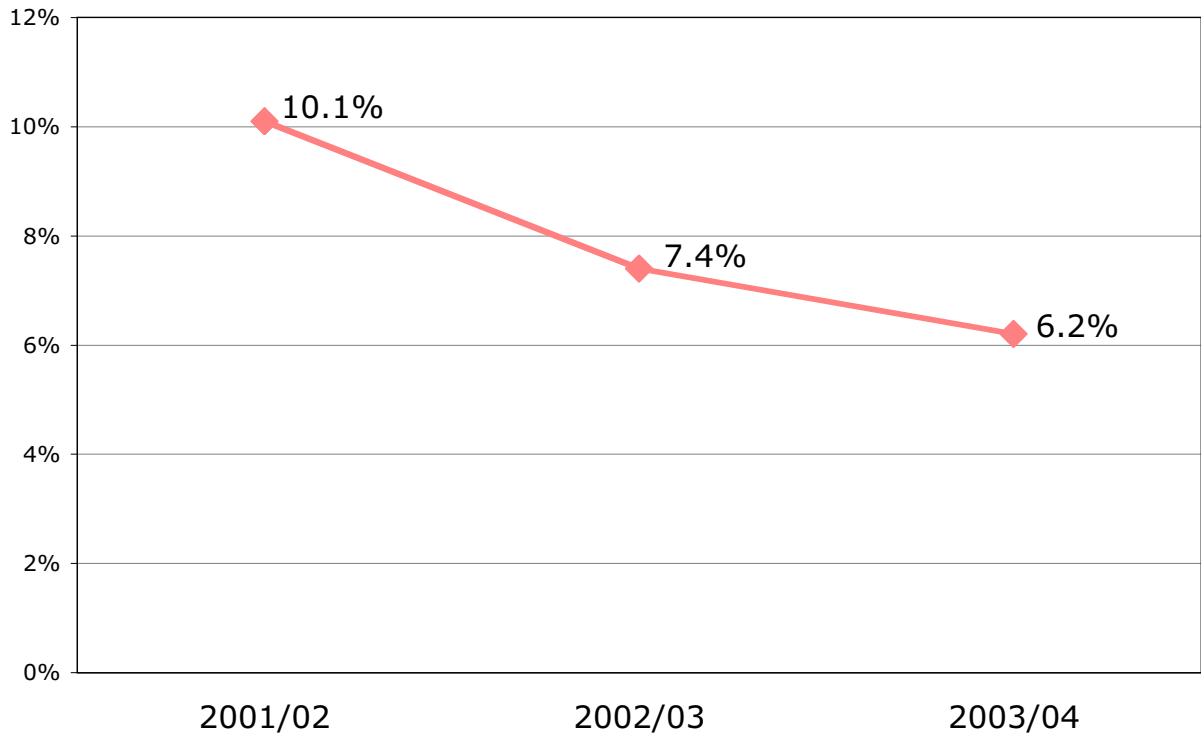
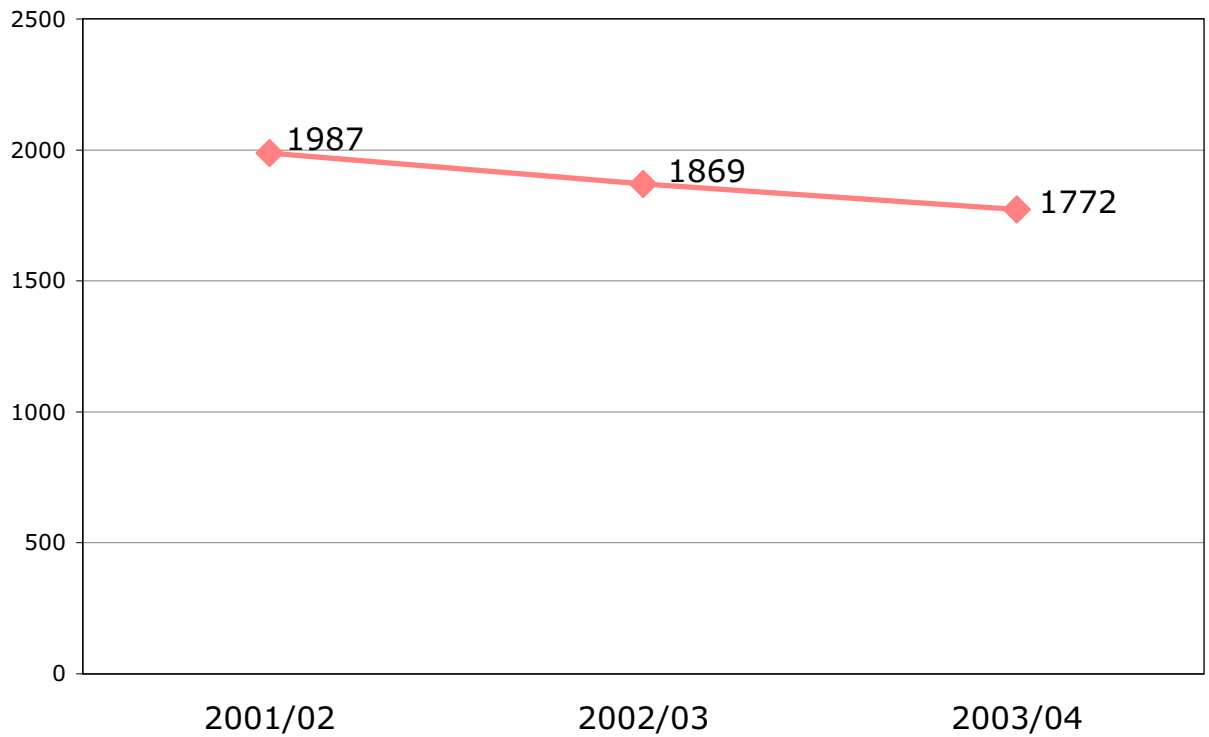


Figure 10: Estimated Number of RNs Required to Fill Staff Nurse Vacancies in Washington Hospitals 2001-02 through 2003-04



USE OF CONTRACT EMPLOYEES

In addition to hiring regular employees, most hospitals also contract for some of their workforce. This can involve hiring staff through agencies, or through direct contracts with professionals. It is difficult to measure the extent of use of these staff because not all hospitals track hours or dollars for these services at the individual occupation level, and often the total amount spent includes expenses other than direct compensation, such as housing, supplies, etc. For this survey, hospitals were asked to indicate whether or not, for each of the 21 occupations, they had used contract employees in the past year, and whether that amount of contracting was more, less or the same as the previous year. Table 7 shows the rates of hospital contracting in 2003/04 compared with 2002/03.

Nearly 80 percent of hospitals contract for staff nurses, and that number has remained almost the same since last year. There was a decline by greater than five percentage points in the number of hospitals contracting for radiology technologists, specialized radiology technologists and surgical technologists between the 2003/04 and the 2002/03 surveys. Occupations where contracting increased by five or more percentage points were respiratory therapists, occupational therapists, licensed pharmacists, and physical therapists. By workforce development area (see Table 8) the rates of contracting vary considerably.

Table 7: Percentage of Washington's Hospitals Using Contract Employees by Occupation in 2003/04 and in Comparison with 2002/03

Occupation	N*	Percentage of Hospitals Using Contract Employees		Percentage Points Difference 2002/03 to 2003/04
		2003/04	2002/03	
Staff nurses (RNs)	70	79%	80%	-1%
Advanced practice nurses	69	6%	3%	3%
Licensed practical nurses (LPNs)	69	28%	27%	1%
Nursing assistants	69	30%	33%	-3%
Medical technicians/clinical lab scientists	67	12%	14%	-2%
Medical/clinical lab technologists	68	4%	6%	-2%
Radiographers/radiology technologists	70	34%	50%	-16%
Specialized radiology technologists (CT, MRI)	69	30%	36%	-6%
Ultrasound technologists	68	38%	39%	-1%
Nuclear medicine technologists	68	29%	26%	3%
Radiation therapy technologists	65	15%	17%	-2%
Medical records technicians	67	6%	6%	0%
Medical records coders	68	15%	14%	1%
Licensed pharmacists	68	31%	24%	7%
Pharmacy technicians	68	7%	6%	1%
Physician assistants	64	8%	6%	2%
Dieticians	70	14%	17%	-3%
Physical therapists	70	41%	36%	5%
Occupational therapists	68	22%	15%	7%
Respiratory therapists	67	37%	28%	9%
Surgical technologists	69	17%	24%	-7%

* Number of hospitals responding to this question.

Table 8: Percentage of Washington's Hospitals Using Contract Employees by Occupation and Workforce Development Area

	Percentage of Hospitals Using Contract Employees											
	1	2	3	4	5	6	7	8	9	10	11	12
Staff nurses (RNs)	75%	88%	67%	100%	92%	100%	*	58%	100%	78%	100%	33%
Advanced practice nurses	25%	0%	0%	0%	15%	0%	*	9%	0%	0%	0%	0%
Licensed practical nurses (LPNs)	0%	50%	0%	100%	31%	80%	*	9%	25%	22%	33%	0%
Nursing assistants	0%	25%	0%	100%	46%	80%	*	17%	0%	44%	33%	0%
Medical technicians/clinical lab scientists	0%	38%	0%	0%	0%	20%	*	17%	0%	0%	67%	0%
Medical/clinical lab technologists	0%	12%	0%	0%	0%	0%	*	8%	0%	0%	33%	0%
Radiographers/radiology technologists	75%	38%	67%	50%	62%	80%	*	17%	0%	0%	0%	17%
Specialized radiology technologists (CT, MRI)	50%	25%	0%	50%	46%	80%	*	27%	25%	11%	33%	0%
Ultrasound technologists	25%	38%	0%	50%	38%	80%	*	27%	25%	33%	33%	67%
Nuclear medicine technologists	0%	25%	33%	100%	54%	100%	*	0%	0%	12%	0%	33%
Radiation therapy technologists	25%	12%	0%	50%	25%	60%	*	0%	0%	12%	0%	0%
Medical records technicians	0%	12%	0%	0%	8%	0%	*	8%	0%	0%	33%	0%
Medical records coders	25%	25%	0%	0%	33%	0%	*	8%	0%	11%	33%	0%
Licensed pharmacists	50%	25%	0%	0%	38%	0%	*	54%	25%	33%	33%	17%
Pharmacy technicians	25%	12%	0%	0%	23%	0%	*	0%	0%	0%	0%	0%
Physician assistants	33%	0%	0%	0%	0%	0%	*	27%	0%	0%	0%	17%
Dieticians	0%	0%	50%	0%	8%	0%	*	17%	20%	33%	33%	17%
Physical therapists	50%	29%	0%	100%	46%	100%	*	42%	40%	33%	33%	0%
Occupational therapists	25%	14%	0%	100%	38%	60%	*	10%	20%	0%	0%	0%
Respiratory therapists	50%	25%	67%	50%	55%	80%	*	27%	25%	11%	67%	0%
Surgical technologists	25%	12%	0%	0%	31%	20%	*	27%	25%	11%	0%	0%

* Data censored because of low response rate in this region.

1. Olympic Peninsula (Clallam, Jefferson, Kitsap counties)
2. Pacific Mountain (Grays Harbor, Lewis, Mason, Pacific, Thurston counties)
3. Northwest (Island, San Juan, Skagit, Whatcom counties)
4. Snohomish county
5. Seattle/King county
6. Tacoma/Pierce county
7. Southwest (Clark, Cowlitz, Skamania, Wahkiakum counties)
8. N. Central (Adams, Chelan, Douglas, Grant, Okanogan counties)
9. Central (Kittitas, Klickitat, Yakima counties)
10. Eastern (Asotin, Columbia, Ferry, Garfield, Lincoln, Pend Oreille, Stevens, Walla Walla, Whitman counties)
11. Benton, Franklin counties
12. Spokane county

Hospitals were asked whether their amount of contracting had increased, stayed the same, or decreased since a year ago. Table 9 shows their responses for those occupations for which 20 percent or more of the hospitals indicate use of contract employees. For most occupations the level of use stayed the same or decreased, but for physical therapists, occupational therapists and respiratory therapists the majority of hospitals said it either stayed the same or increased.

NURSE SHORTAGES AND PATIENT DIVERSION

The questionnaire asked respondents whether or not their hospital had diverted patients in the past year because of a nurse shortage. If the response was “yes,” hospitals were asked how many days they were on divert status. This question was also asked in the 2001/02 survey of Washington’s hospitals, and Figure 11 shows how use of divert status due to nursing shortages dropped by 17 percentage points in two years. Figure 12 shows the number of days these hospitals indicated they diverted patients. Of the 38% (n=26) of hospitals that diverted patients due to nurse shortages in 2003/04, 54 percent were on divert status for more than ten days. This compares with 55 percent of hospitals in 2001/02 diverting patients due to nurse shortages, among which 42 percent (n=16) diverted patients for ten or more days.

Table 9: Level of Use of Contract Employees in Washington Hospitals 2003/04 Compared with One Year Ago

Occupation	N*	Percentage of Hospitals Whose Use of Contract Employees Since One Year Ago:		
		Increased	Stayed the Same	Decreased
Staff nurses (RNs)	60	23.3%	26.7%	50.0%
Licensed practical nurses (LPNs)	29	6.9%	41.4%	51.7%
Nursing assistants	29	6.9%	51.7%	41.4%
Radiographers/radiology technologists	31	6.5%	45.2%	48.4%
Specialized radiology technologists (CT, MRI)	30	10.0%	53.3%	36.7%
Ultrasound technologists	32	12.5%	56.3%	31.3%
Nuclear medicine technologists	27	14.8%	51.9%	33.3%
Licensed pharmacists	29	10.3%	72.4%	17.2%
Physical therapists	34	32.4%	52.9%	14.7%
Occupational therapists	19	26.3%	68.4%	5.3%
Respiratory therapists	32	25.0%	53.1%	21.9%

* Number of hospitals responding to this question.

Figure 11: Percentage of Washington's Hospitals Diverting Patients Due to Nursing Shortages: 2003/04 Compared with 2001/02

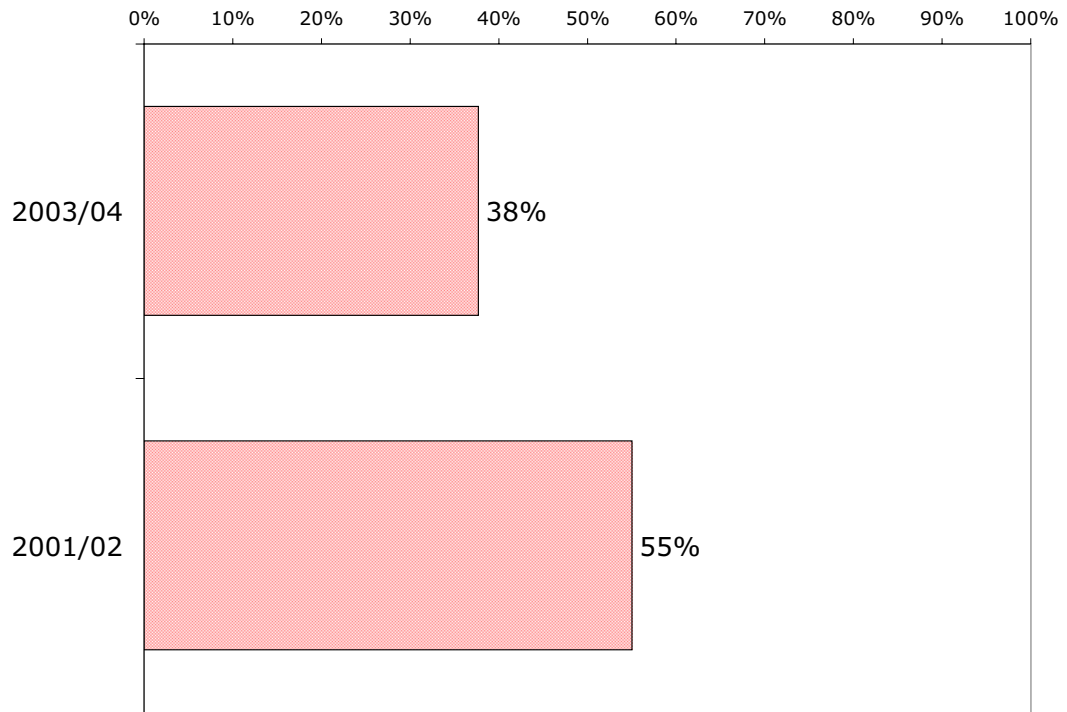
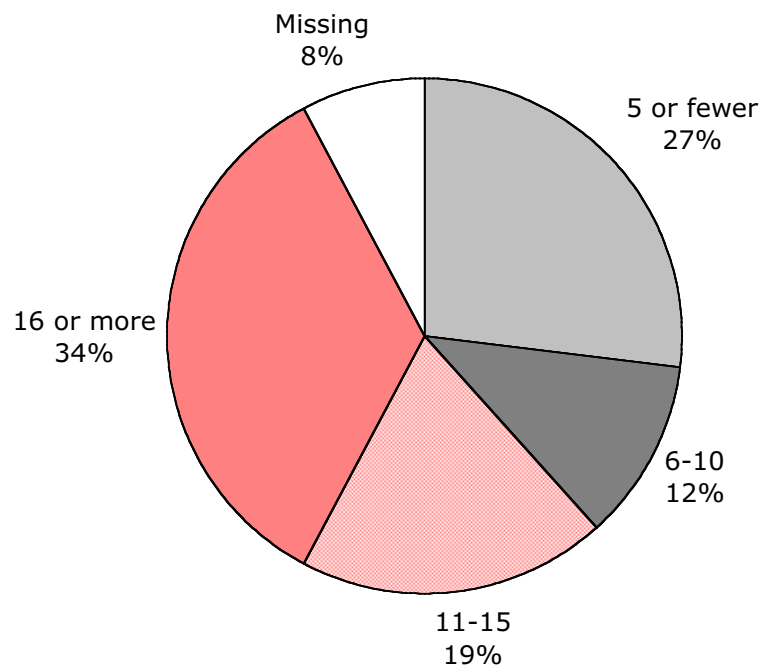


Figure 12: Number of Days of Patient Diversion* Due to Nurse Shortage: Washington Hospitals 2003/04

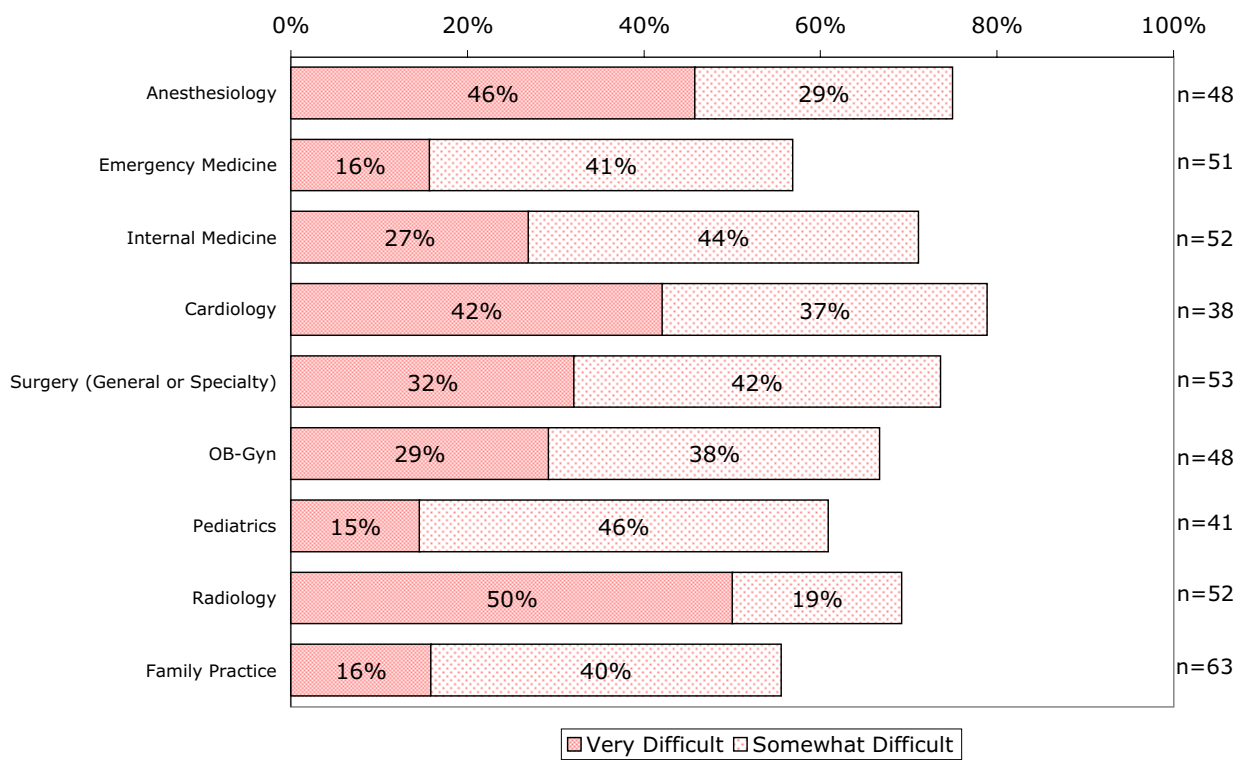


* Among the 26 hospitals diverting patients due to nurse shortages.

PHYSICIAN CREDENTIALING

The difficulty of finding physicians to credential for work in their hospital was reported to vary by physician specialty. As shown in Figure 13, radiologists, anesthesiologists, and cardiologists were cited as being very difficult to recruit by more hospitals than other physician types (50%, 46%, and 42%, respectively).

Figure 13: Level of Difficulty Finding Physicians to Credential for Work in Washington Hospitals* in 2003/04, by Physician Type



* Among hospitals employing the physician type.

DISCUSSION

This survey marked the third year of tracking staffing demand in Washington's acute care hospitals. Having two and in some cases three years of comparable data has allowed us to begin to observe statewide and regional trends. Among the most notable trends is the decline in vacancy rates for staff nurses—from 10 percent in the 2002 survey to 6 percent in 2004. Vacancy rates for other occupations have declined as well, although we have only two years of these data for occupations other than staff nurses. These declines in vacancy rates are echoed in the hospitals' responses to qualitative questions asking "how difficult is it to recruit" the various occupations. With three years of these data, we see gradual declines in the number of hospitals reporting that recruitment is "very difficult" for most occupations. The striking exceptions are for physical therapists, occupational therapists and respiratory therapists, where both vacancy rates and numbers of hospitals reporting "very difficult" to recruit have increased.

Does this mean that the era of hospital staff shortages will soon be over? It depends on the occupation. While staff nurse vacancy rates have dropped significantly, we estimate that the state still needs 1,772 RNs to fill all of the vacancies for acute care hospital staff nurses. This is only 215 fewer than estimated from the 2001/02 survey findings when vacancy rates were at 10.1 percent. But while the absolute numbers of nurses needed may not seem like a major change, one side effect of the drop in vacancy rate may be the decrease in contracting reported by half of the hospitals in this survey. As vacancy rates are brought down, there is less need to rely on contract employees to fill vacant slots and more stability in the nursing workforce—something that is generally considered a positive trend. This survey found fewer hospitals reported that they diverted patients due to nurse shortages compared with two years earlier. This is another indication that the nursing crisis is lessening. Nevertheless, looming over the next decade is the fact that the average age of RNs in the U.S. is rising, and we will soon be faced with increasingly large numbers of retirements from the nurse workforce. Replacing these RNs will add to the pressure on nursing schools to increase their graduations, and will continue to fuel the incentives for importing RNs from other states and countries.

Other occupations with smaller workforces need additional minor system changes to adjust the supply to better meet demand. Identifying and quantifying staffing needs statewide and regionally is important for educators, industry and policy makers as they craft solutions. Tracking data such as those from this survey remain critical tools for assessing these workforce supply and demand trends.

REFERENCES

- Morrill R, Cromartie J, Hart LG (1999). Metropolitan, urban, and rural commuting areas: toward a better depiction of the U.S. settlement system. *Urban Geography* 20(8):727-748.
- Skillman SM, Hutson T, Andrilla CHA, Berkowitz B, Hart LG (2002). *How are Washington State hospitals affected by the nursing shortage? Results of a 2001 survey*. Working Paper #68. Seattle, WA: WWAMI Center for Health Workforce Studies, University of Washington.
- Skillman SM, Hutson T, Andrilla CHA (2003). *Washington State hospitals: results of 2002 Workforce Survey*. Working Paper #79. Seattle, WA: WWAMI Center for Health Workforce Studies, University of Washington.
- U.S. Bureau of Labor Statistics (2000). *SIC based covered employment and wages, 2000*. <ftp.bls.gov/special.requests/cew/SIC/2000>. Accessed 8/7/03.

RELATED RESOURCES FROM THE WWAMI CENTER FOR HEALTH WORKFORCE STUDIES AND THE RURAL HEALTH RESEARCH CENTER

PUBLISHED ARTICLES

Benedetti, T. J., Baldwin, L. M., Andrilla, C. H., Hart, L. G. (2004). The productivity of Washington State's obstetrician-gynecologist workforce: does gender make a difference? *Obstetrics and Gynecology*, 103(3), 499-505.

WORKING PAPERS

Baldwin, L.-M., Fay, M. M., Larson, E. H., Lishner, D. M., Mauksch, L. B., Katon, W. J., Walker, E., Hart, L. G. (2003). *Modeling the mental health workforce in Washington State: using state licensing data to examine provider supply in rural and urban areas*. Working Paper #80. Seattle, WA: WWAMI Center for Health Workforce Studies, University of Washington.

Benedetti, T. J., Baldwin, L.-M., Andrilla, C. H. A., Hart, L. G. (2003). *The productivity of Washington State's obstetrician-gynecologist workforce: does gender make a difference?* Working Paper #82. Seattle, WA: WWAMI Center for Health Workforce Studies, University of Washington.

Larson, E. H., Palazzo, L., Berkowitz, B., Pirani, M. J., Hart, L. G. (2001). *The contribution of nurse practitioners and physician assistants to generalist care in underserved areas of Washington State*. Working Paper #64. Seattle, WA: WWAMI Rural Health Research Center, University of Washington.

Patterson, D., Skillman, S. M. (2002). *Health professions education in Washington State: 1996-2000 program completion statistics*. Working Paper #73. Seattle, WA: WWAMI Center for Health Workforce Studies, University of Washington.

Patterson, D. G., Skillman, S. M., Hart, L. G. (2004). *Washington State's dental hygienist workforce through 2020: influential factors and available data*. Working Paper #92. Seattle, WA: WWAMI Center for Health Workforce Studies, University of Washington.

Patterson, D. G., Skillman, S. M., Hart, L. G. (2004). *Washington State's pharmacist workforce through 2020: influential factors and available data*. Working Paper #90. Seattle, WA: WWAMI Center for Health Workforce Studies, University of Washington.

Patterson, D. G., Skillman, S. M., Hart, L. G. (2004). *Washington State's radiographer workforce through 2020: influential factors and available data*. Working Paper #89. Seattle, WA: WWAMI Center for Health Workforce Studies, University of Washington.

Skillman, S. M., Hutson, T., Andrilla, C. H. A. (2003). *Washington State hospitals: results of 2002 workforce survey*. Working Paper #79. Seattle, WA: WWAMI Center for Health Workforce Studies, University of Washington.

Skillman, S. M., Hutson, T., Andrilla, C. H. A., Berkowitz, B., Hart, L. G. (2002). *How are Washington State hospitals affected by the nursing shortage? Results of a 2001 survey*. Working Paper #68. Seattle, WA: WWAMI Center for Health Workforce Studies, University of Washington.

Wright, G. E., Paschane, D. M., Baldwin, L. M., Domoto, P., Cantrell, D., Hart, L. G. (2001). *Distribution of the dental workforce in Washington State: patterns and consequences*. Working Paper #60. Seattle, WA: WWAMI Center for Health Workforce Studies, University of Washington.

DATA SNAPSHOTS

WWAMI Center for Health Workforce Studies, University of Washington (2000). *Data snapshot: race and ethnicity of Washington State health professionals compared with state population*. Seattle, WA: Author.

WWAMI Center for Health Workforce Studies, University of Washington (2001). *Data snapshot: licensed practical nurses (LPNs) in Washington: demographics and employment characteristics*. Seattle, WA: Author.

WWAMI Center for Health Workforce Studies, University of Washington (2001). *Data snapshot: registered nurses (RNs) in Washington: demographics and employment characteristics*. Seattle, WA: Author.

WWAMI Center for Health Workforce Studies, University of Washington (2002). *Data snapshot: pharmacists in Washington: demographic and employment characteristics*. Seattle, WA: Author.

For a complete list of publications by the Center for Health Workforce Studies, visit <http://www.fammed.washington.edu/CHWS/>.

Appendix A:
Questionnaire

Instructions

Please answer the following questions to the best of your ability. It will help to first review the definitions and instructions at the start of each section.

A. Hospital Characteristics

The questions in this section will help us understand the size and complexity of your hospital facility.

- (A1) How many licensed acute care beds does your hospital have? _____ acute care beds
- (A2) What was your hospital's average daily midnight census (acute care) last year? _____ patients
- (A3) In addition to your acute care beds, how many licensed long-term care beds does your hospital have? _____ long term care beds
- (A4) On average, how many people does your hospital have on its payroll (all professions in all units, including non-acute care)? _____ employees overall
- (A5) On average, how many contract (not outsourced) employees does your hospital employ (all professions in all units, including non-acute care)? _____ contract employees
- (A6) What is your hospital's fiscal year?
 January-December July-June Other (specify: _____)
- (A7) What is the ZIP code of your facility? _____
- (A8) What is the name of your acute care facility? _____

B. Acute Care Hospital Staffing

This section's questions are about the staff who support your *acute care hospital*. If your hospital also supports non-acute care functions (long-term care, outpatient, etc.), please answer the following questions *only* as they relate to support of *your hospital's acute care functions*.

Job Titles: Not all job titles listed in this questionnaire will match with those used at your institution. Please use your best judgement in matching your job titles with the job descriptions.

(B1) Recruitment:

Acute Care Hospital Staff	How difficult is current recruitment?				
	Not Difficult	Somewhat Difficult	Very Difficult	Not Applicable: we do not employ job category	Not Applicable: we have not recently recruited
Nursing Staff:					
(a) Staff nurses (RNs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) Advanced practice nurses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c) LPNs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d) Nursing assistants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Laboratory Staff:					
(e) MT/CLS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(f) MLT/CLT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Radiology Staff:					
(g) Radiographer/radiology technologist	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(h) Specialized radiology technologist (e.g., MRI, CT)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(i) Ultrasound technologist	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(j) Nuclear medicine technologist	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(k) Radiation therapy technologist	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Medical Records:					
(l) Technicians	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(m) Coders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pharmacy:					
(n) Licensed pharmacists	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(o) Pharmacy technicians	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other:					
(p) Physician assistants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(q) Dieticians	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(r) Physical therapists	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(s) Occupational therapists	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(t) Respiratory therapists	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(u) Surgical technologists	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Management:					
(v) Nurse managers/clinical directors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(B2) Regular/On-Payroll Employee Statistics:

Please answer the following questions *only* as they relate to support of *your hospital's acute care* functions.

Full Time Equivalent Position (FTE): Total number of hours per year considered an FTE varies by institution and contract – the range is usually between 1860 and 2080 hours per year (30-40 hours per week). One FTE is indicated 1.0 FTE. Indicate part-time positions as follows: a half-time position = 0.5 FTE; a quarter-time position = 0.25 FTE.

Acute Care Hospital Staff	Employee Statistics: for each job category, indicate the requested statistic for regular/on-payroll staff.						
	Not Applicable: we do not employ job category	# Persons Currently Employed ¹	# FTEs Currently Employed	# FTEs Currently Budgeted	# FTEs Vacant for which You're Currently Recruiting	# Persons Leaving Positions in Past FY ²	Average # Persons Employed During Past FY
Nursing Staff:							
(a) Staff nurses (RNs)	<input type="checkbox"/>						
(b) Advanced practice nurses	<input type="checkbox"/>						
(c) LPNs	<input type="checkbox"/>						
(d) Nursing assistants	<input type="checkbox"/>						
Laboratory Staff:							
(e) MT/CLS	<input type="checkbox"/>						
(f) MLT/CLT	<input type="checkbox"/>						
Radiology Staff:							
(g) Radiographer/radiology technologist	<input type="checkbox"/>						
(h) Specialized radiology tech. (e.g., MRI, CT)	<input type="checkbox"/>						
(i) Ultrasound technologist	<input type="checkbox"/>						
(j) Nuclear medicine technologist	<input type="checkbox"/>						
(k) Radiation therapy technologist	<input type="checkbox"/>						
Medical Records:							
(l) Technicians	<input type="checkbox"/>						
(m) Coders	<input type="checkbox"/>						
Pharmacy:							
(n) Licensed pharmacists	<input type="checkbox"/>						
(o) Pharmacy technicians	<input type="checkbox"/>						
Other:							
(p) Physician assistants	<input type="checkbox"/>						
(q) Dieticians	<input type="checkbox"/>						
(r) Physical therapists	<input type="checkbox"/>						
(s) Occupational therapists	<input type="checkbox"/>						
(t) Respiratory therapists	<input type="checkbox"/>						
(u) Surgical technologists	<input type="checkbox"/>						

¹ Include all positions for this job category that are on your payroll (including full-time and part-time positions, and may include per diem and on-call staff).

² FY = fiscal year.

(B3) Contract Employee Statistics:

Please answer the following questions *only* as they relate to support of *your hospital's acute care* functions.

Contract employees can include agency, traveler, and temporary employees but do not include outsourced services.

Acute Care Hospital Staff	For each job category:	
	Used Contract Employees in Past FY ¹ ?	Change in Amount of Contracting Compared to One Year Ago?
Nursing Staff:		
(a) Staff nurses (RNs)	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Less <input type="checkbox"/> The same <input type="checkbox"/> More
(b) Advanced practice nurses	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Less <input type="checkbox"/> The same <input type="checkbox"/> More
(c) LPNs	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Less <input type="checkbox"/> The same <input type="checkbox"/> More
(d) Nursing assistants	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Less <input type="checkbox"/> The same <input type="checkbox"/> More
Laboratory Staff:		
(e) MT/CLS	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Less <input type="checkbox"/> The same <input type="checkbox"/> More
(f) MLT/CLT	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Less <input type="checkbox"/> The same <input type="checkbox"/> More
Radiology Staff:		
(g) Radiographer/radiology technologist	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Less <input type="checkbox"/> The same <input type="checkbox"/> More
(h) Specialized radiology technologist (e.g., MRI, CT)	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Less <input type="checkbox"/> The same <input type="checkbox"/> More
(i) Ultrasound technologist	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Less <input type="checkbox"/> The same <input type="checkbox"/> More
(j) Nuclear medicine technologist	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Less <input type="checkbox"/> The same <input type="checkbox"/> More
(k) Radiation therapy technologist	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Less <input type="checkbox"/> The same <input type="checkbox"/> More
Medical Records:		
(l) Technicians	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Less <input type="checkbox"/> The same <input type="checkbox"/> More
(m) Coders	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Less <input type="checkbox"/> The same <input type="checkbox"/> More
Pharmacy:		
(n) Licensed pharmacists	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Less <input type="checkbox"/> The same <input type="checkbox"/> More
(o) Pharmacy technicians	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Less <input type="checkbox"/> The same <input type="checkbox"/> More
Other:		
(p) Physician assistants	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Less <input type="checkbox"/> The same <input type="checkbox"/> More
(q) Dieticians	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Less <input type="checkbox"/> The same <input type="checkbox"/> More
(r) Physical therapists	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Less <input type="checkbox"/> The same <input type="checkbox"/> More
(s) Occupational therapists	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Less <input type="checkbox"/> The same <input type="checkbox"/> More
(t) Respiratory therapists	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Less <input type="checkbox"/> The same <input type="checkbox"/> More
(u) Surgical technologists	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Less <input type="checkbox"/> The same <input type="checkbox"/> More

¹FY = fiscal year.

(B4) Divert Status:

(B4a) During the past fiscal year, did your hospital go on “*divert status*” because of a shortage of RN staff?

- No (skip to Question B5) Yes (continue to Question B4b)

(B4b) On *how many days* did your hospital go on divert status because of RN shortages in the past fiscal year?

- 5 or fewer days 11-15 days More than 20 days (# of days: _____)
 6-10 days 16-20 days

(B5) Physicians:

Physician Type	How difficult is it in your community to find the following types of physicians to credential for work in your hospital?			
	Not Difficult	Somewhat Difficult	Very Difficult	NA: we do not credential MD specialty
(a) Anesthesiology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) Emergency medicine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c) Internal medicine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d) Cardiology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(e) Surgery (general or specialty)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(f) Obstetrics-gynecology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(g) Pediatrics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(h) Radiology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(i) Other MD specialty (specify: _____)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(j) Family practice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(B6) Please provide any additional comments or observations you may have about recruitment and retention of the hospital workforce in Washington:

C. Other Information

(C1) Please give the *job title* of the person(s) responsible for completing this survey:

Primary person completing survey: _____ (job title)
Others who contributed to survey: _____ (job title)
_____ (job title)

(C2) If we need clarification of any of the responses to this survey, may we contact you?

Name: _____
Phone number: _____
E-mail address: _____

Thank you for completing this questionnaire. Please fax your responses to Tina Praseuth at 206-283-6122 or mail it to Tina at the Health Workforce Institute, Washington State Hospital Association, 300 Elliott Ave., Suite 300, Seattle, WA 98119-4118. If you have questions, please call Tina at 206-216-2541.