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Washington State Hospitals:
Results of
2005 Workforce Survey

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by

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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 survey and questionnaire were jointly designed by the CHWS and the HWFI. Data collection was conducted by the HWFI; data coding and entry, and data analysis and reporting were 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 Domi Zhou at the HWFI for valuable data collection assistance and Martha Reeves and Thao Nguyen of the CHWS for their valuable report preparation and data entry assistance. Catherine Veninga of the CHWS provided cartographic support.

WWAMI CENTER FOR HEALTH WORKFORCE STUDIES

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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-one percent of the 88 hospitals responded to this mailed survey.

MAJOR FINDINGS

- The 2005 staff nurse vacancy rate of 6 percent is unchanged from 2004, while the number of employed staff nurses in payroll positions increased by 19 percent in the past year.
- Approximately 1,900 RNs are needed to fill current vacancies—roughly the same number as were needed in 2001 when the vacancy rate was 10 percent.
- Employment for most hospital occupations has grown in the past several years.
- More than half of the hospitals report it is very difficult to recruit physical therapists, nuclear medicine technologists, occupational therapists, and ultrasound technologists.
- Regions vary with regard to type of occupation in short supply and level of recruitment difficulty.
- Many hospitals report employing fewer contract employees over the past year.
- Of hospitals reporting it is "very difficult" to recruit neurologists, obstetrician-gynecologists, specialist surgeons, internists, and family physicians, most say there is a serious access problem for that physician type in their community.

POLICY IMPLICATIONS

Growth in Washington's hospital sector appears to be keeping the demand for health care occupations high, even when vacancy rates for some jobs appear to be lower than in past years. This growth, and the shift away from contracting employees, needs to be considered in projections of future workforce supply and demand.

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, as well as other dynamics of hospital employment in the state, have been documented by surveys jointly conducted by the University of Washington Center for Health Workforce Studies (CHWS) and the Health Work Force Institute (HWFI) of the Washington State Hospital Association (Skillman et al., 2002, 2003, 2004). A fourth survey of the non-federal acute care hospitals in Washington was conducted during the summer of 2005. 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 June through August 2005. The 2005 questionnaire was collaboratively designed by the HWFI and CHWS. The HWFI funded data collection (carried out by the HWFI) and analysis (by CHWS). The HWFI 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. 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.

QUESTIONNAIRE

A five-page questionnaire (see Appendix A) was developed and revised based on the 2001, 2002-3, and 2004 questionnaires. The questionnaire asked for descriptive information about the hospital's employment and contracting statistics for 22 occupational staff 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. The 2005 questionnaire also included a question about hospital patient diversion due to nurse shortages that was included in the 2001 and 2004 questionnaires.

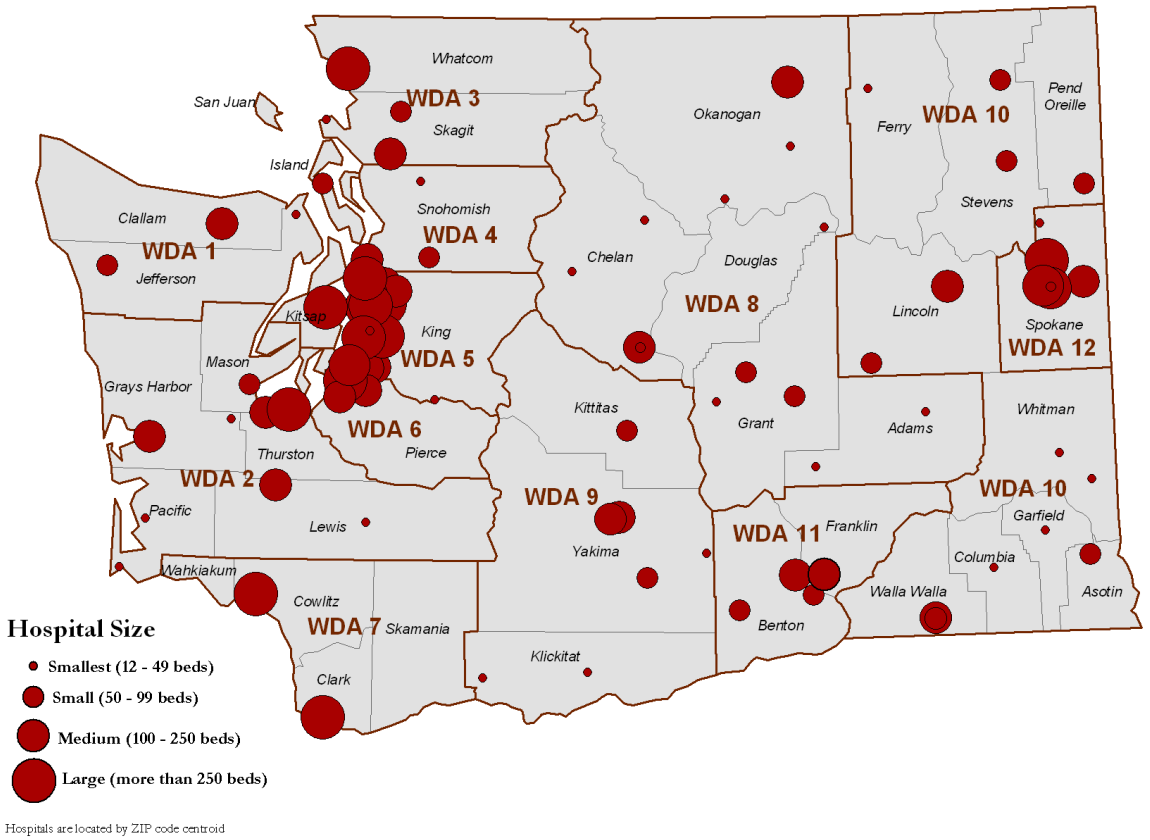
WORKFORCE DEVELOPMENT AREAS

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. Figure 1 shows the WDAs and location of each surveyed care hospital by hospital size.

IMPUTING VALUES FOR NON-RESPONDENTS

To estimate the total number of employed staff and full-time equivalents (FTEs), and the number of staff 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 beds operated by the facility: smallest (fewer than 50 beds), small (50-99 beds), medium (100-250 beds) and large (more than 250 beds). The number of licensed beds for each hospital was obtained from the Washington State Department of Health (2005). 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. In order to downweight these estimates to more accurately reflect occupations not employed by all hospitals (e.g., nuclear medicine technologist, physician assistant), the imputed values for employment and vacancies were multiplied by the proportion of responding hospitals who employed the occupation.

Figure 1: Hospital Location and Workforce Development Areas (WDAs) in Washington State



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. This rate was calculated by dividing the number of persons employed 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 reported employed plus 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 reported employed plus vacant FTEs, 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 vacancy and employed FTE data.

COMPARISON WITH PREVIOUS SURVEY RESULTS

This survey was the fourth in a series that began in 2001. Each questionnaire includes questions about current staffing, as well as for the previous 12-month period. These four surveys were conducted at various intervals: the first from March to June 2001, the second 18 months later from October 2002 to March 2003, the third 16 months later from April to July 2004, and this fourth survey was conducted 12 months after the third, from June through August 2005. The results of the first three surveys have been published in three separate CHWS working papers (Skillman et al., 2002, 2003, 2004). In this report of the findings from the 2005 hospital survey, the previous waves will be referred to as the 2001, the 2002-3, and the 2004 results.

RESULTS

DESCRIPTION OF RESPONDENTS

The survey yielded a response from 70, or 80 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. Fifty-six percent of the hospitals are located in rural areas (defined using the Rural-Urban Commuting Area classification [Morrill et al., 1999]) and 44 percent are in urban areas.

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	29	18	22	19
Responding hospitals	70 (80%)	24 (83%)	13 (72%)	17 (77%)	16 (84%)
Average number of acute care beds	155	41	64	162	418
Average daily midnight census (# responses to question)	74.6	8.3	16.5	74.1	222.8
Average number of persons on payroll* (# responses to question)	1,155	184	365	1,127	3,285
Location					
Rural†	39 (44%)	21 (72%)	12 (67%)	6 (27%)	0 (0%)
Urban	49 (56%)	8 (28%)	6 (33%)	16 (73%)	19 (100%)
Previous survey response rates					
2004‡	81%	87%	64%	68%	94%
2002-3§	84%	84%	75%	86%	86%
2001‖	82%	89%	69%	83%	76%

* Facility-wide.
† Rural-urban areas were determined using Rural-Urban Commuting Area Classification (Morrill et al., 1999) based on ZIP codes.
‡ As reported in UW CHWS Working Paper #93 (Skillman et al., 2004).
§ As reported in UW CHWS Working Paper #79 (Skillman et al., 2003).
‖ As reported in UW CHWS Working Paper #68 (Skillman et al., 2002).

Table 2: Hospital Survey Response by Workforce Development Area

	Workforce Development Area*											
	1	2	3	4	5	6	7	8	9	10	11	12
2005 surveyed hospitals	4	9	5	4	16	5	2	13	7	13	4	6
Responding hospitals	2	7	5	4	11	5	2	9	5	11	4	5
Response rate	50%	78%	100%	100%	69%	100%	100%	69%	71%	85%	100%	83%
Previous survey response rates												
2004†	100%	89%	60%	50%	81%	100%	50%	92%	71%	69%	75%	100%
2002-3‡	100%	67%	100%	60%	79%	100%	100%	85%	86%	77%	100%	100%
2001§	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

† As reported in UW CHWS Working Paper #93 (Skillman et al., 2004).
‡ As reported in UW CHWS Working Paper #79 (Skillman et al., 2003).
§ As reported in UW CHWS Working Paper #68 (Skillman et al., 2002).

WDA response rates ranged from 50 percent (one region) to 100 percent (in five regions). Table 2 shows survey response rates by WDA for all survey waves.

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 22 occupation types and comparison to previous surveys are shown in Figure 2.

Physical therapists and occupational therapists have become more difficult to recruit, with 82 percent (for physical therapists) and 67 percent (for occupational therapists) of hospitals reporting current recruitment for the occupations is "very difficult." For most other occupations the percentage of hospitals reporting that recruitment is "very" or "somewhat difficult" has declined, but still over half of the hospitals that employ nuclear medicine technologists, licensed pharmacists, and ultrasound technologists report that current recruitment is "very difficult." Only for licensed practical nurses, nursing assistants, medical records technicians, and pharmacy technicians did more than half the hospitals report that recruitment was "not difficult."

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 3.

EMPLOYMENT AND VACANCIES

The questionnaire asked hospital respondents to provide numbers of persons employed, full-time equivalents (FTEs) employed, and FTEs vacant (for which they were currently recruiting) for 21 occupations in their acute care facilities. Total 2005 employees were estimated using these reported numbers and imputed values for non-respondents, and Table 3 shows total employees compared with the numbers from the 2004 and 2002-3 surveys.

Table 4 shows the estimated number of FTEs employed from 2002-3 through 2005 surveys and the percentage change across that time. Except for advanced practice nurses, more FTEs (from 12% to 159%) of all occupations are employed in the state's acute care hospitals since the 2002-3 survey.

The 2005 estimated number of FTEs vacant, the ratio of persons per FTE employed, and estimated number of persons required to fill vacancies for each of the 21 hospital occupations is shown in Table 5. The ratio of persons per FTE employed is a measure of the amount of part-time employment in an occupation's workforce. In 2005, the occupations with the most part-time employment were dieticians (1.7 persons per FTE) and staff nurses, physical therapists, and occupational therapists (each with 1.5 persons per FTE). The three occupations with the largest number of vacancies are staff nurses (1,858), nursing assistants (321), and physical therapists (162). Table 6 shows the estimated number of persons needed by WDA and occupation for 2005 and 2004. For staff nurses the data for 2002-3 is included (these data were not published for the other occupations in the report of the 2002-3 survey).

Figure 2: Difficulty Recruiting in Washington Hospitals 2001-2005, by Occupation

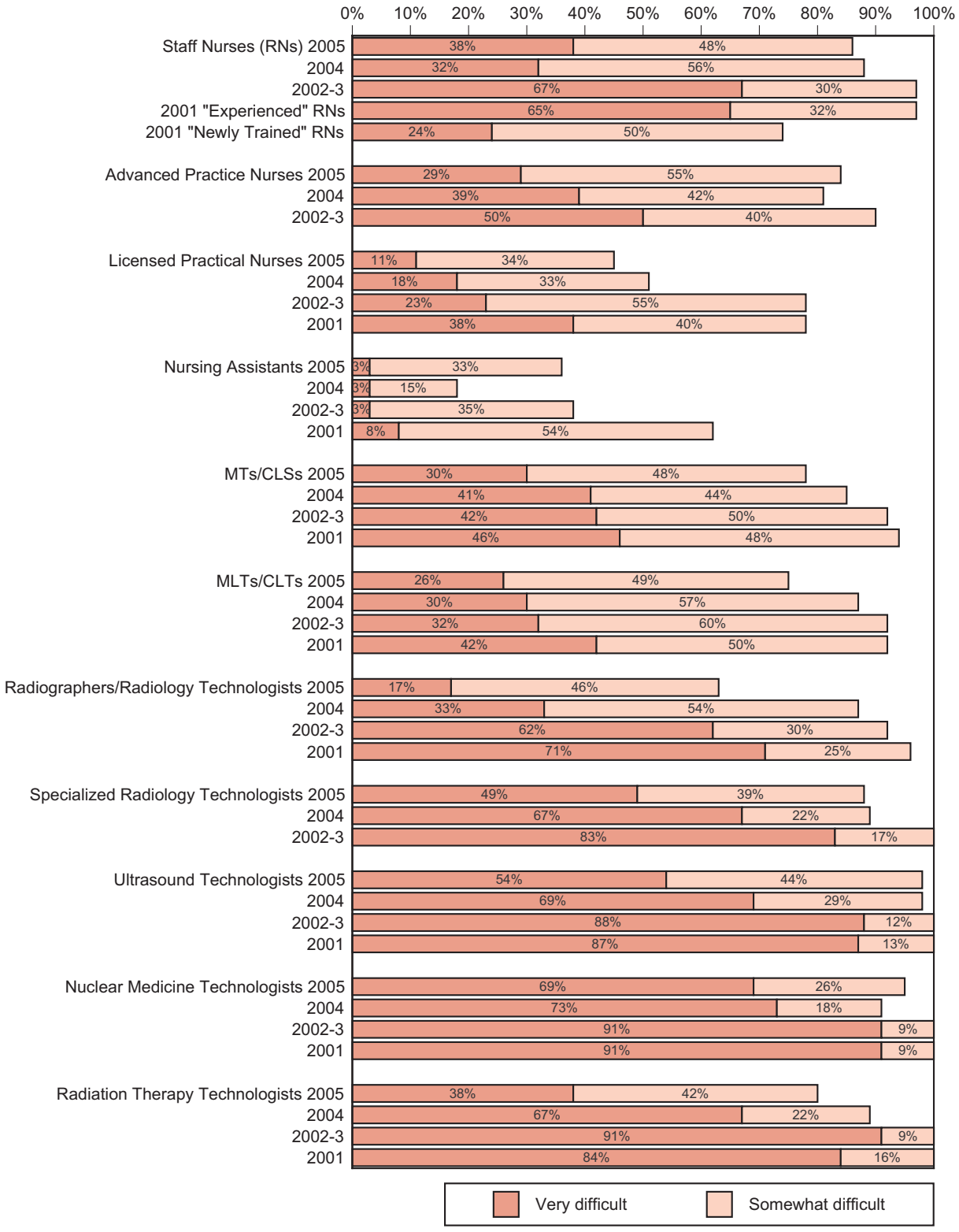
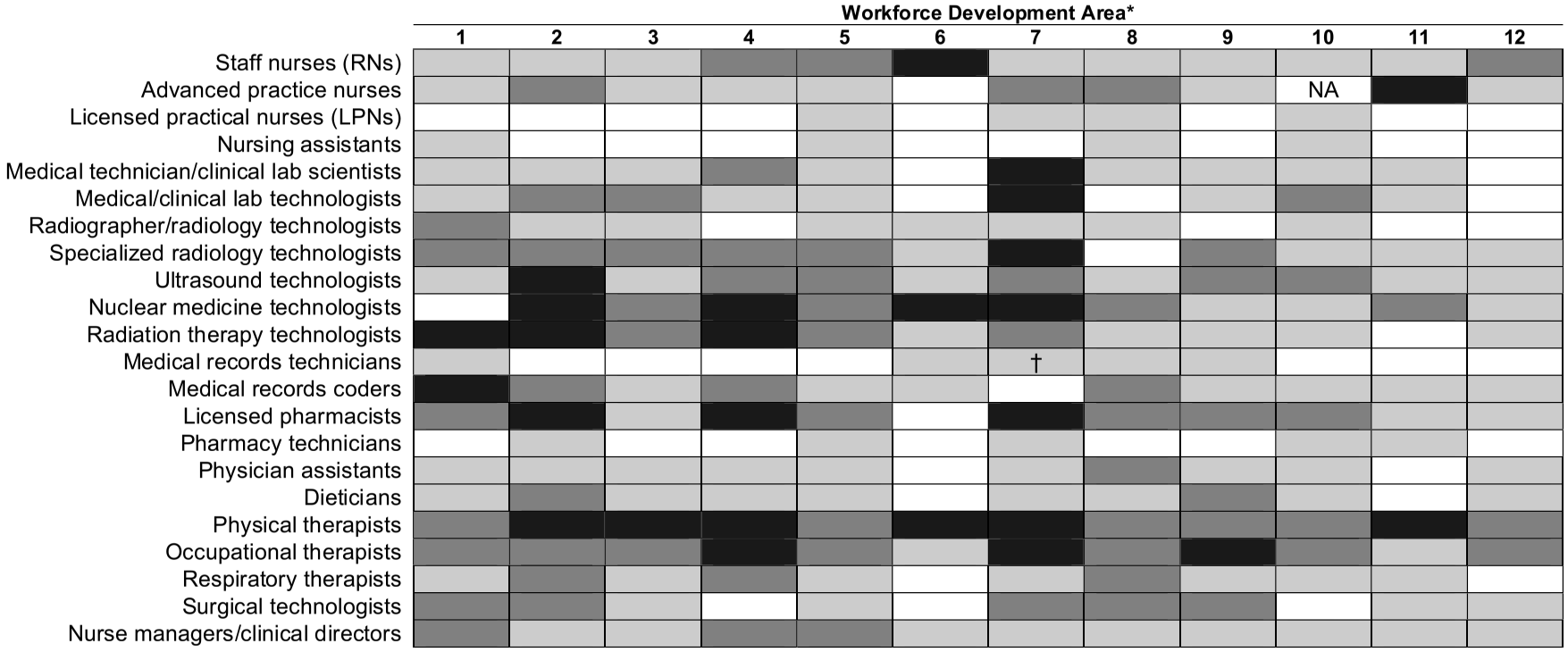


Figure 2 (cont.)

Figure 3: Difficulty of Recruiting Employees in Washington Hospitals in 2005, by Occupation and Workforce Development Area



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," but < 50% reported "not difficult"
	< 50% of hospitals (that employ the occupation) reported recruitment as "very difficult," but ≥ 50% reported "not difficult"
NA	Not applicable because all reporting hospitals do not employ and/or have not recruited recently

* 1. Olympic Peninsula (Clallam, Jefferson, Kitsap counties)
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11. Benton, Franklin counties
12. Spokane county

† 50% of the hospitals reported "very difficult" and 50% "not difficult."

Overall vacancy rates over time as well as changes in the number of persons and FTEs needed to fill vacancies for each of the 21 hospital occupations are shown in Figure 4. Staff nurses are the largest segment of the hospital workforce. While their vacancy rates have dropped from 10.1 percent in 2001 to 5.8 percent in 2005, the total number of RNs needed to fill those positions has changed little: 1,858 RNs are needed in 2005 compared to 1,987 in 2001. In 2005 the hospital occupations with the highest overall vacancy rates are physical therapists and occupational therapists (11.1% and 14.4% respectively).

Figure 5 displays the growth in payroll positions for RN staff nurses in Washington's acute care hospitals from 2001 to 2005. The figure shows that the employment of staff nurses in payroll positions between surveys exceeds that required to fill the vacancies from the previous survey period. Total demand for staff nurses to fill payroll positions, as shown in this figure, increased 41 percent from the time of the 2001 to the 2005 survey.

Table 7 shows average hospital vacancy rates by occupation type for 2005 compared with 2001, 2002-3, and 2004 survey results. Average hospital vacancy rates are the average of all individual hospitals' vacancy rates for each occupation type. This method of calculating vacancy rates treats large and small hospitals with equal weight.

In 2005, hospitals were asked, by occupation type, "If you have a vacancy, how many months have you been recruiting for the position that has been vacant longest?" Table 8 shows the percentage of hospitals (among those employing each occupation) that report having vacancies of six months or longer, and the average number of months of the longest vacancy. Physical therapists, staff nurses, nuclear medicine technologists, and occupational therapists are the occupations for which average recruitment times are

Table 3: Estimated* Number of Persons Employed in Washington's Hospitals by Occupation in 2002-3, 2004, and 2005

Occupation	Percentage of Hospitals Employing the Occupation in 2005	2002-3†	2004‡	2005	Percentage Change 2002-3 to 2005
Staff nurses (RNs)	100%	22,454	25,412	30,137	34%
Advanced practice nurses	44%	482	493	545	13%
Licensed practical nurses (LPNs)	87%	1,694	1,978	1,790	6%
Nursing assistants	93%	4,030	4,554	4,863	21%
Medical technicians/clinical lab scientists	80%	1,415	1,405	1,677	19%
Medical/clinical lab technologists	81%	446	672	707	59%
Radiographers/radiology technologists	90%	968	1,138	1,321	36%
Specialized radiology technologists (CT, MRI)	81%	688	860	1,102	60%
Ultrasound technologists	80%	350	418	498	42%
Nuclear medicine technologists	62%	169	213	239	41%
Radiation therapy technologists	29%	113	159	313	177%
Medical records technicians	78%	581	704	884	52%
Medical records coders	91%	437	511	586	34%
Licensed pharmacists	90%	931	1,148	1,294	39%
Pharmacy technicians	81%	942	1,157	1,345	43%
Physician assistants	51%	113	169	337	198%
Dieticians	79%	317	383	459	45%
Physical therapists	80%	922	1,020	1,215	32%
Occupational therapists	68%	457	533	632	38%
Respiratory therapists	87%	1,225	1,419	1,658	35%
Surgical technologists	88%	982	1,315	1,148	17%

* Number reported plus number imputed for non-responding hospitals.
† As reported in UW CHWS Working Paper #79 (Skillman et al., 2003).
‡ As reported in UW CHWS Working Paper #93 (Skillman et al., 2004).

the longest. More than half of hospitals reported that they recruited six months or longer for physical therapist (57%) and approximately half (48%) for staff nurse positions.

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. 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 9 shows the rates of hospital contracting as reported in the 2005 survey compared with the 2004 and 2002-3 surveys. The percentage of hospitals contracting employees has decreased for several occupations, including staff nurses, licensed practical nurses, radiographers/radiology technologists, radiation therapy technologists, and medical record technicians. For medical records coders, licensed pharmacists, physical therapists, occupational therapists, and respiratory therapists the percentage of contracting hospitals has increased. By WDA the percentage of hospitals contracting for the various occupation types varies considerably (Table 10). When asked if the amount of contracting had changed compared to one year ago, 30 percent or more of hospitals reported less contracting for staff nurses, licenses practical nurses, nursing assistants, radiographers/radiology technologists, specialized radiology technologists, nuclear medicine

Table 4: Estimated* Number of FTEs Employed in Washington's Hospitals by Occupation in 2002-3, 2004, and 2005

Occupation	2002-3†	2004‡	2005	Percentage Change 2002-3 to 2005
Staff nurses (RNs)	14,992	16,653	20,043	34%
Advanced practice nurses	517	386	393	-24%
Licensed practical nurses (LPNs)	1,120	1,367	1,255	12%
Nursing assistants	2,956	3,534	3,723	26%
Medical technicians/clinical lab scientists	1,035	1,029	1,407	36%
Medical/clinical lab technologists	408	533	545	34%
Radiographers/radiology technologists	710	869	996	40%
Specialized radiology technologists (CT, MRI)	572	717	813	42%
Ultrasound technologists	239	300	366	53%
Nuclear medicine technologists	146	174	230	58%
Radiation therapy technologists	101	146	262	159%
Medical records technicians	581	539	770	33%
Medical records coders	416	439	513	23%
Licensed pharmacists	638	821	1,021	60%
Pharmacy technicians	645	841	1,013	57%
Physician assistants	106	124	272	157%
Dieticians	184	240	274	49%
Physical therapists	551	693	840	52%
Occupational therapists	260	348	412	58%
Respiratory therapists	734	944	1,162	58%
Surgical technologists	710	904	929	31%

* Number reported plus number imputed for non-responding hospitals.
† As reported in UW CHWS Working Paper #79 (Skillman et al., 2003).
‡ As reported in UW CHWS Working Paper #93 (Skillman et al., 2004).

Table 5: Estimated Number of FTEs Vacant, Ratio of Persons per FTE Employed, and Persons Required to Fill Vacancies in Washington's Hospitals in 2005, by Occupation

Occupation	2005 Survey		
	FTEs Vacant (est.*)	Persons/FTE Employed	Persons Needed (est.†)
Staff nurses (RNs)	1,239	1.5	1,858
Advanced practice nurses	24	1.4	34
Licensed practical nurses (LPNs)	53	1.4	75
Nursing assistants	237	1.4	321
Medical technicians/clinical lab scientists	50	1.2	60
Medical/clinical lab technologists	45	1.3	58
Radiographers/radiology technologists	56	1.3	75
Specialized radiology technologists (CT, MRI)	52	1.4	71
Ultrasound technologists	22	1.4	31
Nuclear medicine technologists	6	1.0	7
Radiation therapy technologists	10	1.2	11
Medical records technicians	15	1.1	17
Medical records coders	23	1.1	26
Licensed pharmacists	84	1.3	105
Pharmacy technicians	39	1.3	52
Physician assistants	8	1.2	9
Dieticians	14	1.7	23
Physical therapists	111	1.5	162
Occupational therapists	67	1.5	102
Respiratory therapists	47	1.4	66
Surgical technologists	61	1.2	75

* Number reported plus number imputed for non-responding hospitals.
† Estimated FTEs vacant multiplied by the ratio of persons/FTE employed.

technologists, and radiation therapy technologists (Table 11). Only for physical therapists and medical/clinical lab technologists did more than 30 percent of hospitals report using more contract employees in the past year.

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. In 2001, 55 percent diverted patients because of a nursing shortage, compared with 38 percent in 2004 and 37 percent in 2005 (Figure 6). In 2005, 46 percent of these hospitals (the 37% who diverted patients) reported that they diverted for 5 days or fewer, 12 percent diverted for 6 to 10 days, 41 percent diverted for more than 10 days. In the 2004 survey, 53 percent of diverting hospitals diverted patients for more than 10 days and 24 percent of hospitals in the 2001 survey did the same (Skillman et al., 2002, 2004).

PHYSICIAN CREDENTIALING

Hospitals' difficulty finding physicians in their community to credential for work in their hospital is somewhat less as reported in the 2005 survey than in the 2004 survey (Figure 7). Fewer hospitals reported recruiting to be "very difficult" for anesthesiologists, cardiologists, and radiologists. With the exception of pediatricians, more than half of all credentialing

Table 6: Estimated* Number of Persons Needed to Fill Vacancies in Washington's Hospitals, by Workforce Development Area† and Occupation, 2002-3,‡ 2004,§ and 2005

	Persons Needed (est.)											
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Staff nurses (RNs)												
2005	117	160	52	132	627	263	68	101	85	53	62	140
2004	79	154	141	106	546	166	93	66	91	89	57	184
2002-3	83	88	139	108	746	233	85	52	99	40	43	154
Advanced practice nurses												
2005	1	5	0	0	25	0	0	2	0	0	0	1
2004	3	3	5	3	14	5	3	0	0	0	0	3
LPNs												
2005	3	11	2	3	21	8	1	8	7	8	3	1
2004	3	9	6	6	18	7	4	4	9	10	6	6
Nursing assistants												
2005	21	24	5	18	108	42	16	20	14	21	1	30
2004	10	18	17	14	62	18	10	16	14	23	8	23
MT/CLS												
2005	4	6	2	8	25	3	1	3	2	4	0	3
2004	1	6	6	5	20	6	4	4	3	4	1	9
MLT/CLT												
2005	4	6	0	2	35	1	0	2	2	0	1	4
2004	2	6	3	4	18	4	4	3	3	2	2	6
Radiographer/radiology technologist												
2005	8	6	2	7	27	11	4	2	1	3	0	5
2004	3	6	6	4	21	6	3	4	4	4	2	5
Specialized radiology technologist (e.g., MRI, CT)												
2005	6	5	4	0	30	6	8	3	2	1	1	6
2004	3	4	5	3	18	5	3	1	2	1	1	5
Ultrasound technologist												
2005	3	2	0	4	7	4	0	3	1	2	3	3
2004	2	4	3	3	13	4	2	2	3	3	2	3
Nuclear medicine technologist												
2005	1	0	0	0	4	1	0	0	0	0	0	1
2004	1	2	2	1	8	2	1	0	1	0	1	2
Radiation therapy technologist												
2005	1	0	0	6	2	0	1	0	0	0	0	1
2004	0	0	1	1	1	0	0	1	0	4	0	0

Table 6 (cont.)

	Persons Needed (est.)											
	1	2	3	4	5	6	7	8	9	10	11	12
Medical records technicians												
2005	1	1	1	0	3	3	3	2	0	0	0	2
2004	1	0	3	1	8	3	1	1	0	1	0	4
Medical records coders												
2005	3	1	1	1	11	2	0	3	1	1	0	2
2004	1	2	1	1	4	1	1	1	1	2	1	1
Licensed pharmacists												
2005	8	9	4	4	41	10	5	6	5	2	4	9
2004	2	4	4	3	16	5	3	1	3	3	2	6
Pharmacy technicians												
2005	4	3	0	5	18	3	5	1	1	3	2	6
2004	3	5	4	3	14	4	3	3	3	4	3	3
Physician assistants												
2005	1	0	0	0	5	1	0	1	0	1	0	1
2004	1	0	1	1	3	1	1	1	0	1	0	0
Dieticians												
2005	1	4	1	3	5	4	0	1	2	1	0	1
2004	0	1	1	1	2	1	0	1	0	1	0	0
Physical therapists												
2005	11	12	16	5	47	11	0	15	14	18	4	8
2004	8	11	12	10	42	15	8	11	8	11	6	6
Occupational therapists												
2005	9	5	0	10	45	10	2	3	3	4	0	11
2004	4	5	8	5	28	8	4	3	2	4	2	4
Respiratory therapists												
2005	3	6	1	8	27	6	0	5	4	3	0	3
2004	4	6	8	5	25	7	4	2	5	8	3	10
Surgical technologists												
2005	4	6	1	7	22	12	5	5	3	3	0	6
2004	3	6	6	4	19	6	3	4	4	5	1	7

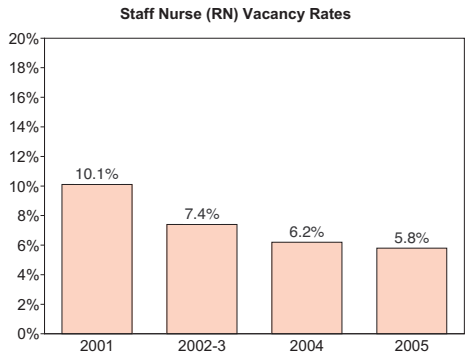
* Using estimated FTEs needed to fill vacancies multiplied by the ratio of persons per FTEs employed for each occupation type.

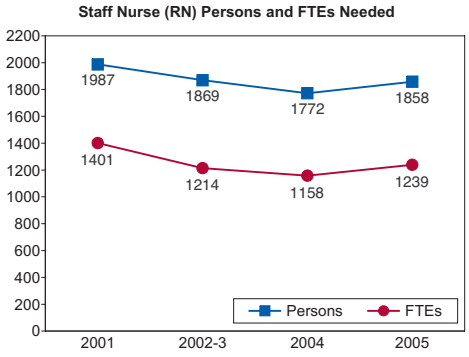
† 1. Olympic Peninsula (Clallam, Jefferson, Kitsap counties)
2. Pacific Mountain (Grays Harbor, Lewis, Mason, Pacific, Thurston counties)
3. Northwest (Island, San Juan, Skagit, Whatcom counties)
4. Snohomish county
5. Seattle/King county
6. Tacoma/Pierce county
7. Southwest (Clark, Cowlitz, Skamania, 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

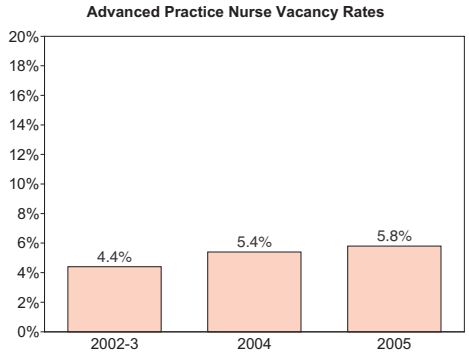
‡ 2002-3 data for staff nurses only, as reported in UW CHWS Working Paper #79 (Skillman et al., 2003).

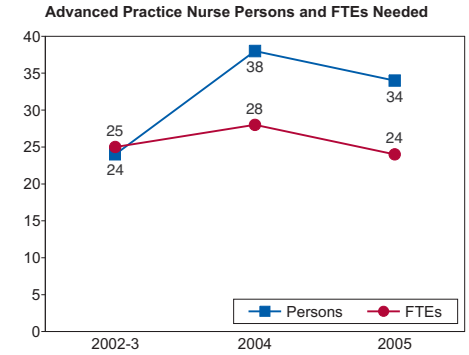
§ As reported in UW CHWS Working Paper #93 (Skillman et al., 2004).

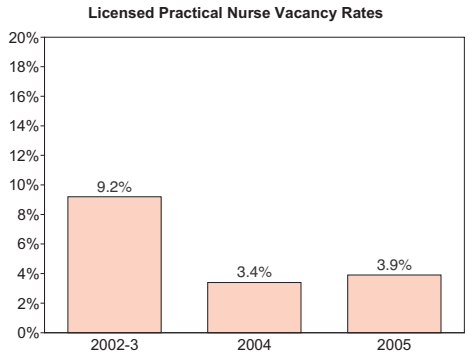
Figure 4: Overall Vacancy Rates and Persons and FTEs Required to Fill Vacancies in Washington's Hospitals Over Time* by Occupation

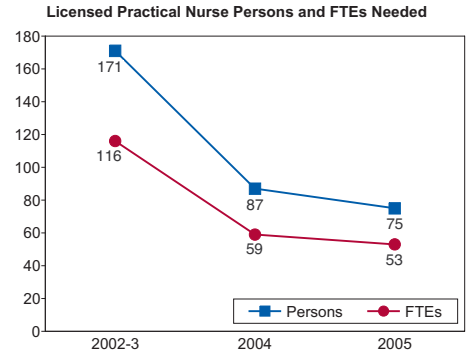


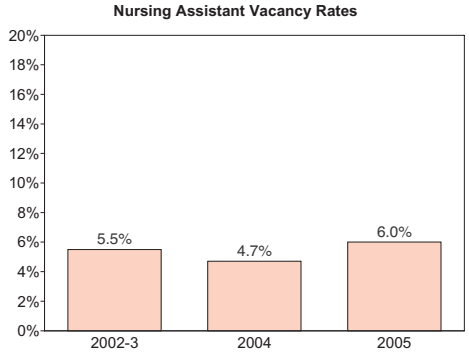


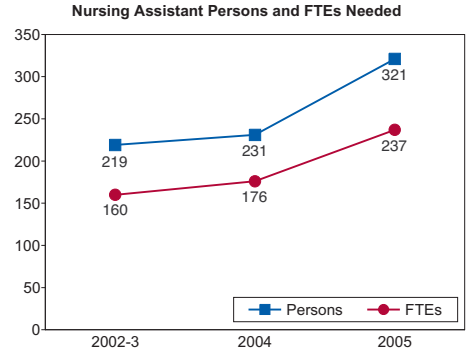








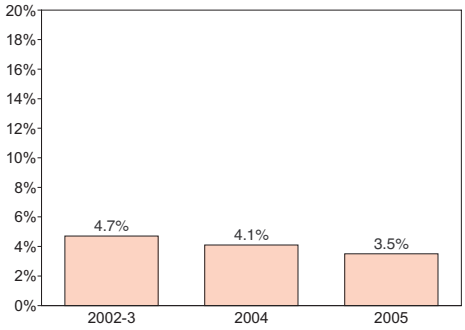




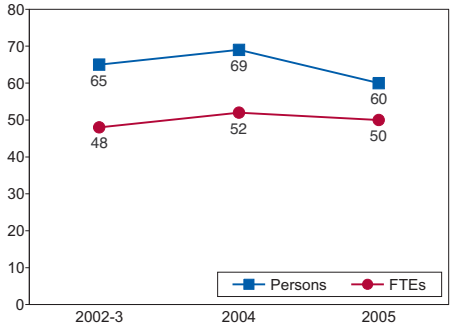
* 2001 data as reported in UW CHWS Working Paper #68 (Skillman et al., 2002) (vacancy data were obtained only for staff nurses in the 2001 survey). 2002-3 data as reported in UW CHWS Working Paper #79 (Skillman et al., 2003). 2004 data as reported in UW CHWS Working Paper #93 (Skillman et al., 2004).

Figure 4 (cont.)

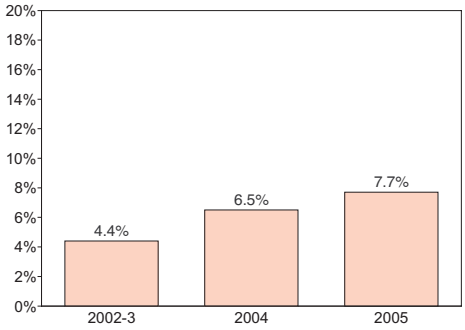
Medical Technician/Clinical Lab Scientist Vacancy Rates



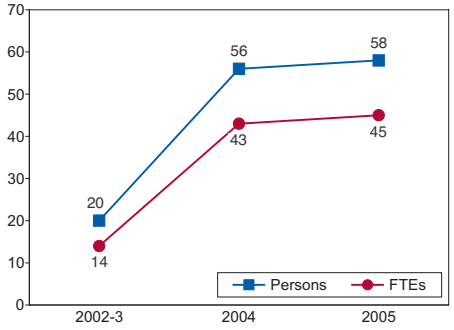
Medical Tech/Clinical Lab Scientist Persons and FTEs Needed



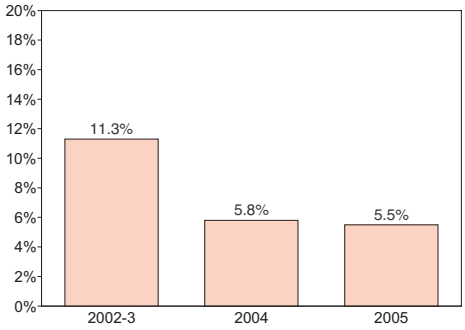
Medical/Clinical Lab Technologist Vacancy Rates



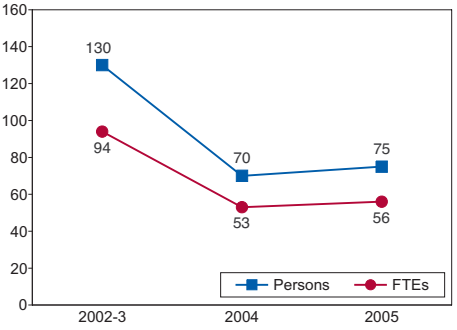
Medical/Clinical Lab Technologist Persons and FTEs Needed



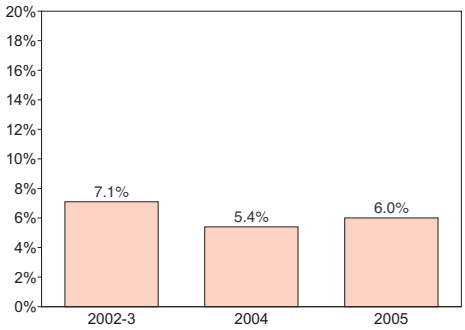
Radiographer/Radiology Technologist Vacancy Rates



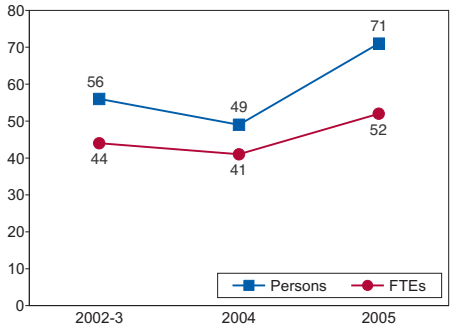
Radiographer/Radiology Tech Persons and FTEs Needed



Specialized Radiology Technologist Vacancy Rates



Specialized Radiology Technologist Persons and FTEs Needed



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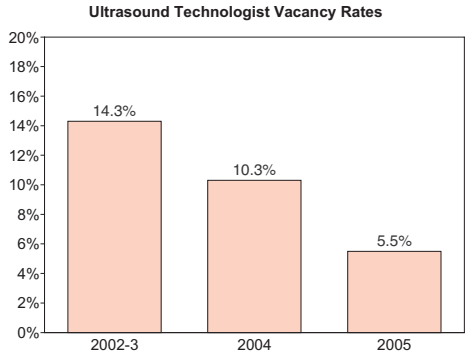

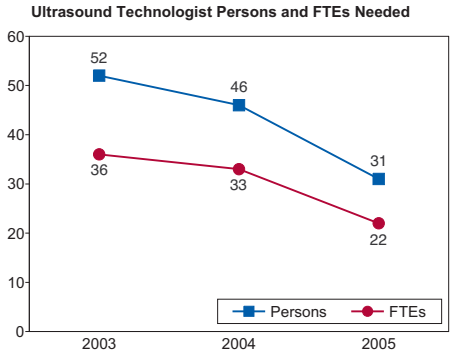

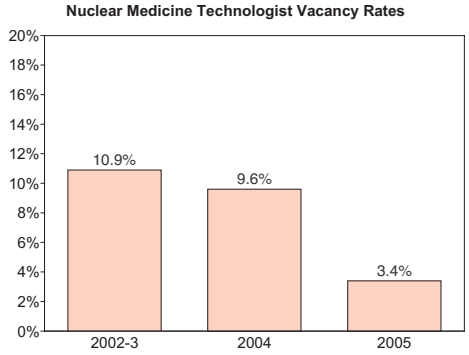

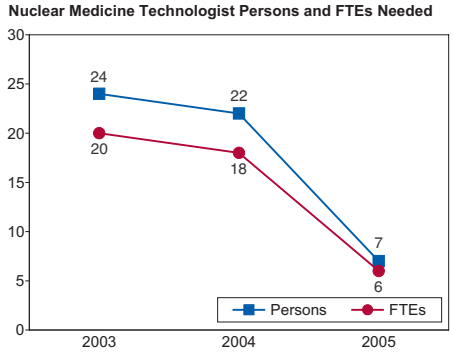

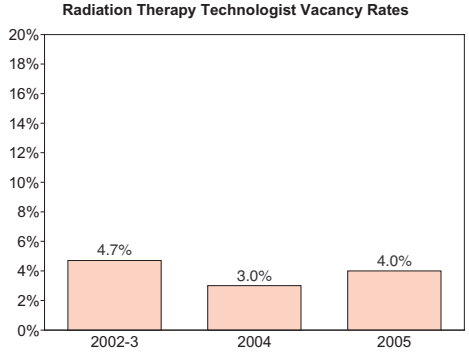

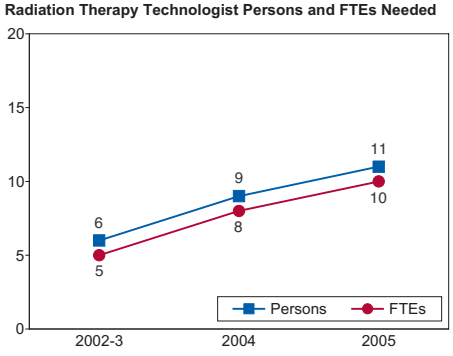

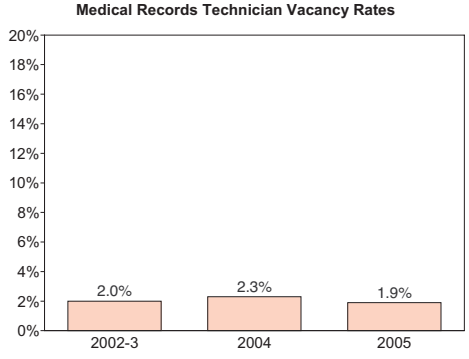

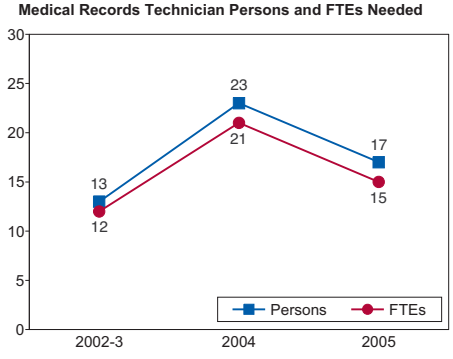

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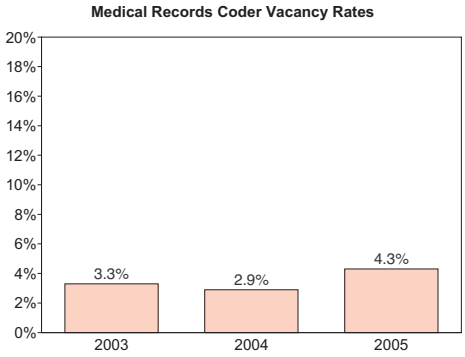

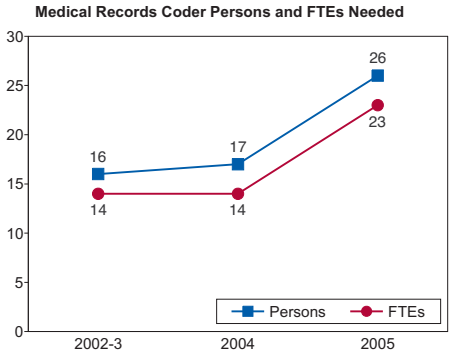

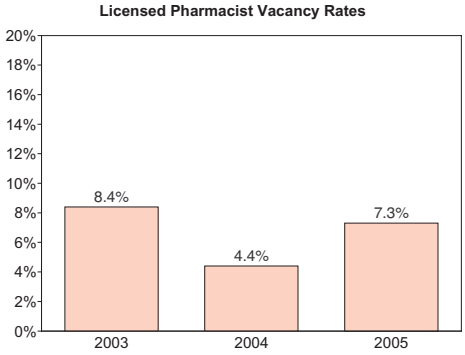

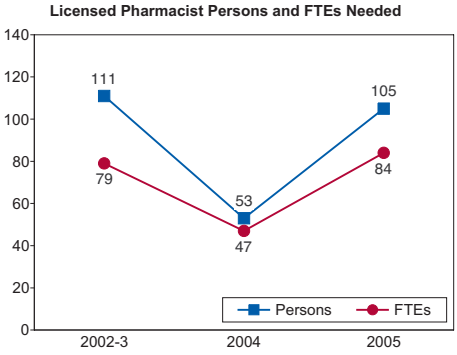

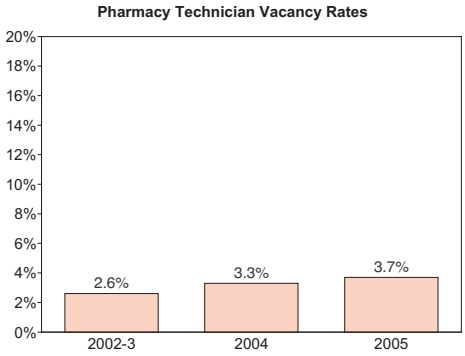

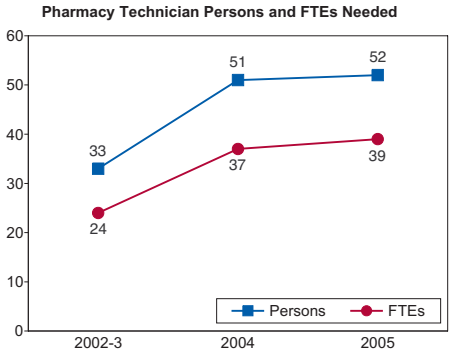

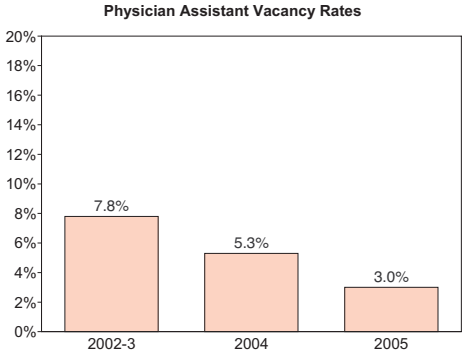

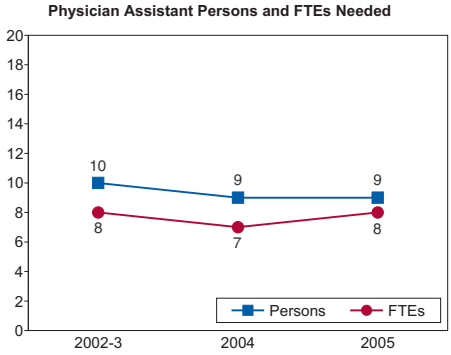

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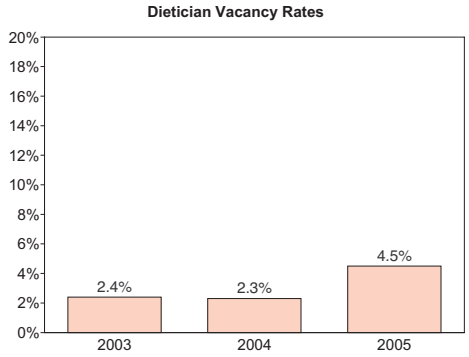

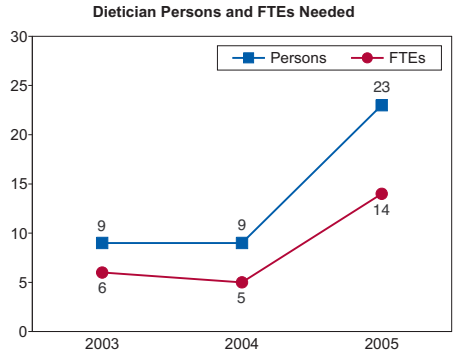

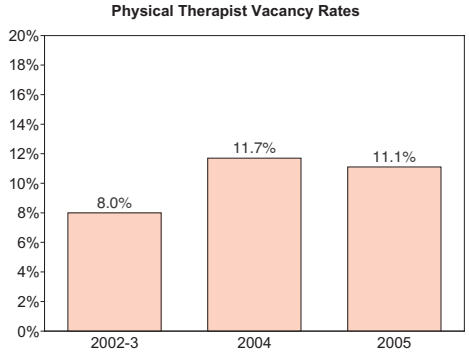

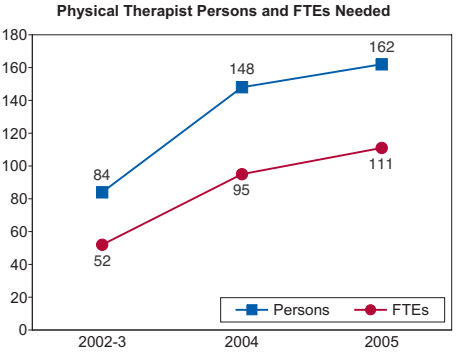

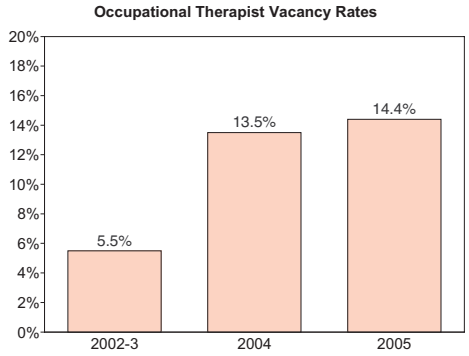

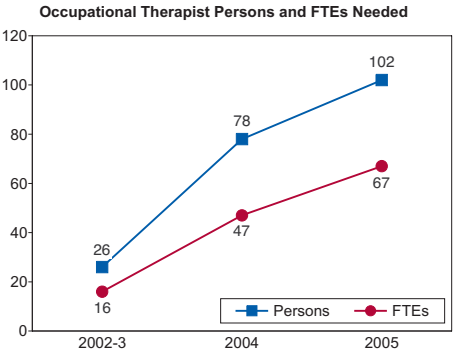

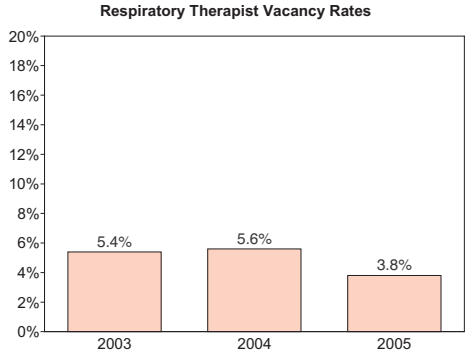

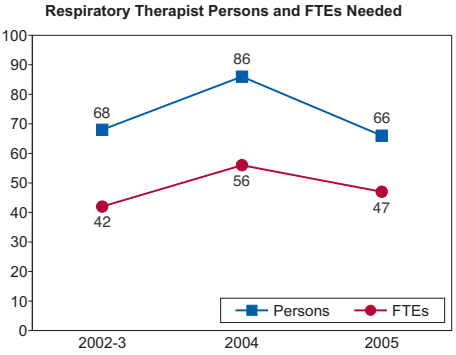

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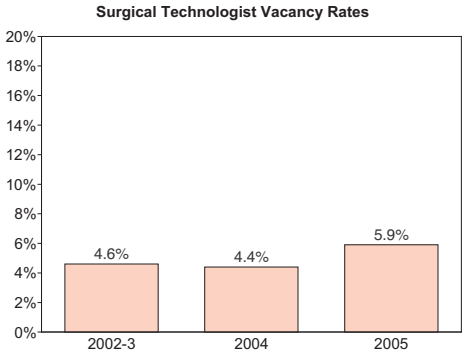


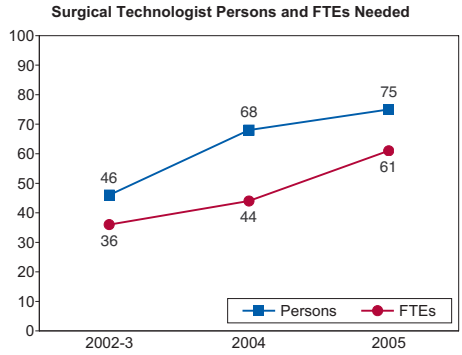
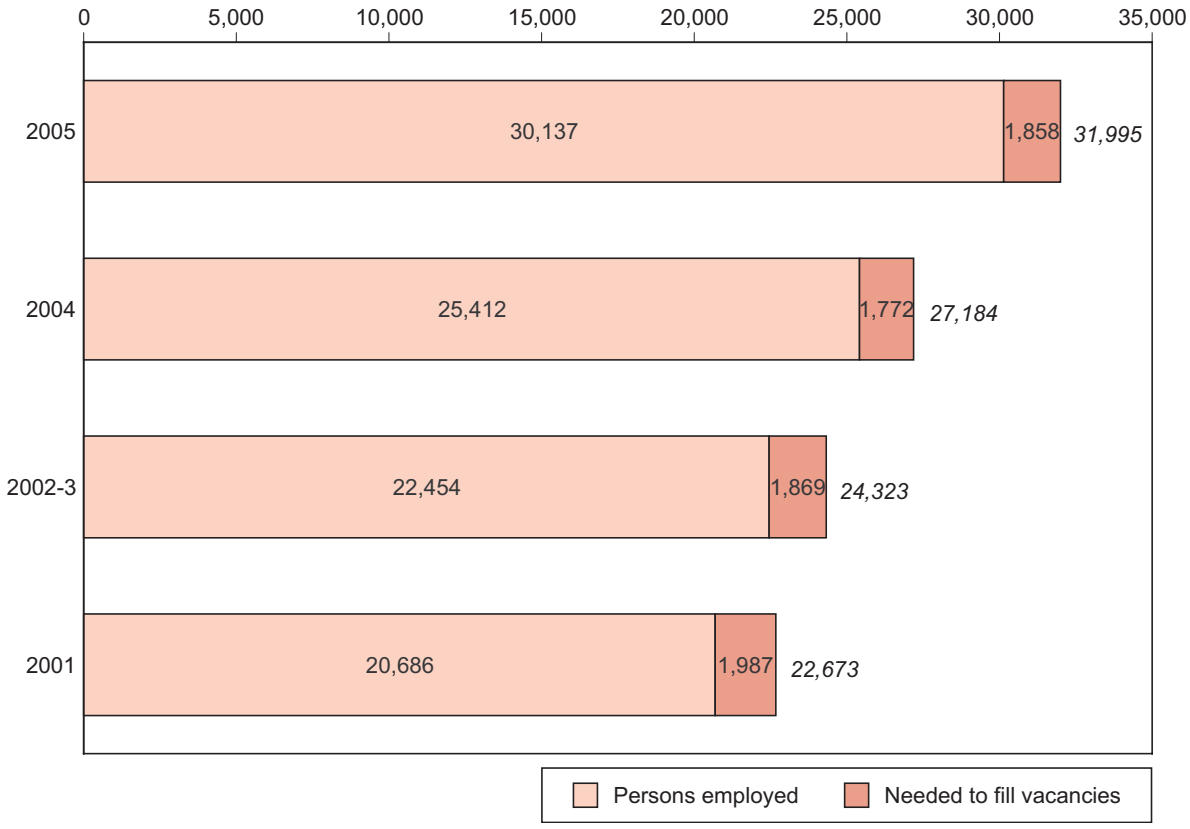


Figure 5: Staff Nurses (RNs): Number Employed* and Vacancies in Washington's Hospitals from 2001 to 2005



* On payroll; may include per diem and on-call.

Table 7: Average Hospital Vacancy Rates* in Washington's Hospitals Over Time by Occupation

Occupation	Average Hospital Vacancy Rate*		
	2002-3†	2004‡	2005
Staff nurses (RNs)	7.3%	10.1%	7.8%
Advanced practice nurses	8.7%	5.8%	1.7%
Licensed practical nurses (LPNs)	6.7%	3.6%	4.6%
Nursing assistants	5.6%	7.8%	5.1%
Medical technicians/clinical lab scientists	9.1%	4.9%	4.0%
Medical/clinical lab technologists	4.0%	6.4%	6.8%
Radiographers/radiology technologists	12.2%	7.1%	5.4%
Specialized radiology technologists (CT, MRI)	5.5%	3.1%	5.8%
Ultrasound technologists	15.6%	11.0%	3.7%
Nuclear medicine technologists	7.2%	7.8%	1.2%
Radiation therapy technologists	4.9%	4.0%	2.3%
Medical records technicians	4.6%	2.4%	1.3%
Medical records coders	5.1%	3.5%	3.7%
Licensed pharmacists	11.5%	5.7%	8.2%
Pharmacy technicians	1.8%	7.4%	4.6%
Physician assistants	6.5%	6.0%	2.8%
Dieticians	3.6%	2.2%	4.8%
Physical therapists	9.8%	16.7%	16.6%
Occupational therapists	7.8%	16.1%	14.0%
Respiratory therapists	6.7%	4.2%	4.0%
Surgical technologists	6.1%	7.3%	5.6%

* The average of all hospitals' vacancy rates, which is different from the "overall vacancy rate."
† As reported in UW CHWS Working Paper #79 (Skillman et al., 2003).
‡ As reported in UW CHWS Working Paper #93 (Skillman et al., 2004).

Table 8: Months Required, by Occupation, to Recruit for the Position that Has Been Vacant the Longest, 2005

Occupation	Percentage of Hospitals Employing the Occupation:		Average Number of Months for Longest Vacancies
	That Have Vacancies	That Have Vacancies ≥ 6 Months	
Staff nurses (RNs)	85%	48%	7.1
Advanced practice nurses	10%	25%	5.0
Licensed practical nurses (LPNs)	27%	33%	5.3
Nursing assistants	62%	11%	2.0
Medical technicians/clinical lab scientists	31%	20%	3.7
Medical/clinical lab technologists	20%	0%	1.5
Radiographers/radiology technologists	32%	19%	2.5
Specialized radiology technologists (CT, MRI)	36%	21%	3.6
Ultrasound technologists	29%	25%	3.5
Nuclear medicine technologists	11%	25%	6.7
Radiation therapy technologists	12%	0%	*
Medical records technicians	15%	0%	1.7
Medical records coders	16%	22%	3.4
Licensed pharmacists	53%	23%	3.2
Pharmacy technicians	27%	0%	1.7
Physician assistants	10%	0%	3.3
Dieticians	20%	0%	1.4
Physical therapists	67%	57%	7.4
Occupational therapists	47%	39%	6.9
Respiratory therapists	29%	36%	4.9
Surgical technologists	35%	18%	3.2

* Too few responses to report.

hospitals reported it was "somewhat" or "very" difficult to recruit all of the listed physician types.

Hospitals that indicated physician recruitment was "very difficult" were asked if there were a serious access problem in their community for people needing the physician type. Fourteen percent said there was a community access problem for anesthesiology, 67 percent for internal medicine, 38 percent for cardiology, 50 percent for general surgery, 69 percent for specialty surgery, 70 for obstetrics-gynecology, 23 percent for radiology, 80 percent for neurology, and 56 percent for family medicine.

Table 9: Percentage of Washington's Hospitals Using Contract Employees by Occupation in 2002-3, 2004, and 2005

Occupation	2002-3*	2004†	2005
Staff nurses (RNs)	80%	79%	76%
Advanced practice nurses	3%	6%	6%
Licensed practical nurses (LPNs)	27%	28%	19%
Nursing assistants	33%	30%	34%
Medical technicians/clinical lab scientists	14%	12%	15%
Medical/clinical lab technologists	6%	4%	12%
Radiographers/radiology technologists	50%	34%	30%
Specialized radiology technologists (CT, MRI)	36%	30%	35%
Ultrasound technologists	39%	38%	36%
Nuclear medicine technologists	26%	29%	25%
Radiation therapy technologists	17%	15%	12%
Medical records technicians	6%	6%	3%
Medical records coders	14%	15%	21%
Licensed pharmacists	24%	31%	39%
Pharmacy technicians	6%	7%	6%
Physician assistants	6%	8%	6%
Dieticians	17%	14%	19%
Physical therapists	36%	41%	41%
Occupational therapists	15%	22%	26%
Respiratory therapists	28%	37%	34%
Surgical technologists	24%	17%	28%

* As reported in UW CHWS Working Paper #79 (Skillman et al., 2003).
† As reported in UW CHWS Working Paper #93 (Skillman et al., 2004).

Table 10: Percentage of Washington's Hospitals Using Contract Employees in 2005 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)	50	71	80	100	100	100	50	56	100	73	100	0
Advanced practice nurses	0	0	0	0	27	0	0	0	0	0	0	20
Licensed practical nurses (LPNs)	0	29	0	75	36	40	0	0	0	9	25	0
Nursing assistants	0	14	0	100	64	100	50	0	0	45	25	0
Medical technicians/clinical lab scientists	0	14	0	50	30	20	0	0	0	18	25	0
Medical/clinical lab technologists	0	14	20	25	20	20	0	0	0	18	0	0
Radiographers/radiology technologists	50	57	0	25	73	80	50	0	20	9	0	0
Specialized radiology technologists (CT, MRI)	50	14	20	50	73	100	100	22	20	10	0	0
Ultrasound technologists	50	29	20	50	45	100	50	11	20	40	25	20
Nuclear medicine technologists	50	14	20	50	55	100	0	0	0	10	0	0
Radiation therapy technologists	50	0	20	0	27	60	0	0	0	0	0	0
Medical records technicians	0	0	0	0	18	0	0	0	0	0	0	0
Medical records coders	50	29	0	25	64	20	0	11	0	9	25	0
Licensed pharmacists	50	29	0	50	64	40	50	50	20	36	50	20
Pharmacy technicians	0	0	0	0	36	0	0	0	0	0	0	0
Physician assistants	0	0	0	25	20	0	0	0	0	0	0	25
Dieticians	50	14	0	0	0	0	0	33	40	36	25	20
Physical therapists	50	17	20	50	64	100	0	22	60	40	50	0
Occupational therapists	50	17	0	50	64	80	0	0	0	10	25	20
Respiratory therapists	0	14	60	75	70	80	0	11	40	10	25	0
Surgical technologists	50	14	20	50	60	20	50	22	20	20	25	0

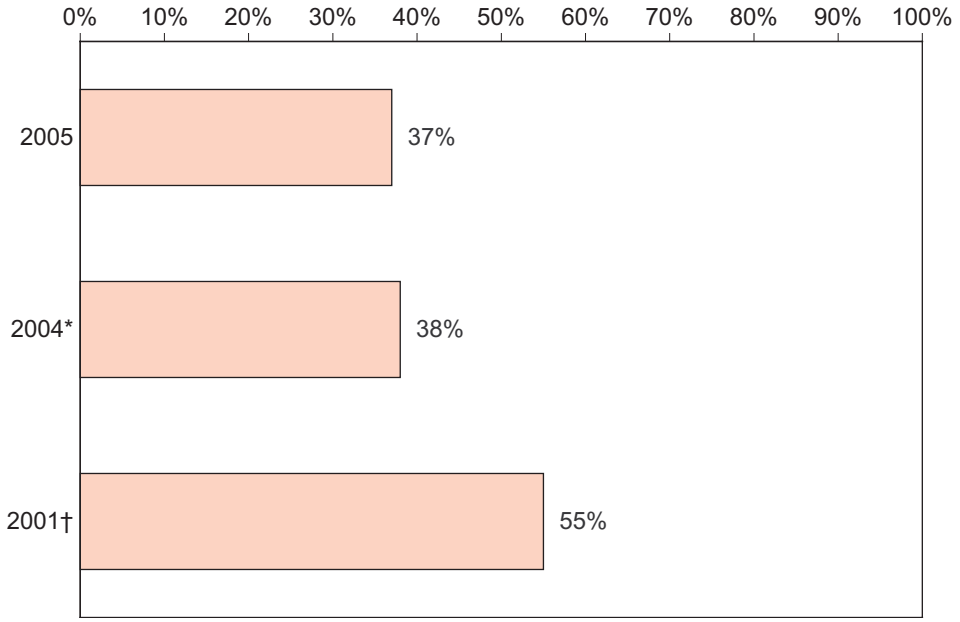
* 1. Olympic Peninsula (Clallam, Jefferson, Kitsap counties)
2. Pacific Mountain (Grays Harbor, Lewis, Mason, Pacific, Thurston counties)
3. Northwest (Island, San Juan, Skagit, Whatcom counties)
4. Snohomish county
5. Seattle/King county
6. Tacoma/Pierce county
7. Southwest (Clark, Cowlitz, Skamania, 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

Table 11: Level of Use of Contract Employees in Washington Hospitals 2005 Compared with One Year Ago

Occupation	N†	Percentage* of Hospitals Whose Use of Contract Employees Since One Year Ago Was: More	The Same	Less
Staff nurses (RNs)	53	23%	32%	45%
Advanced practice nurses	17	0%	76%	24%
Licensed practical nurses (LPNs)	21	5%	62%	33%
Nursing assistants	28	21%	32%	46%
Medical technicians/clinical lab scientists	21	24%	67%	10%
Medical/clinical lab technologists	18	33%	61%	6%
Radiographers/radiology technologists	33	12%	42%	46%
Specialized radiology technologists (CT, MRI)	32	22%	44%	34%
Ultrasound technologists	31	16%	55%	29%
Nuclear medicine technologists	26	23%	38%	38%
Radiation therapy technologists	18	6%	56%	39%
Medical records technicians	17	6%	88%	6%
Medical records coders	23	22%	70%	9%
Licensed pharmacists	34	15%	65%	21%
Pharmacy technicians	17	6%	88%	6%
Physician assistants	16	0%	81%	19%
Dieticians	23	9%	78%	13%
Physical therapists	33	33%	55%	12%
Occupational therapists	25	20%	64%	16%
Respiratory therapists	32	6%	78%	16%
Surgical technologists	27	15%	59%	26%

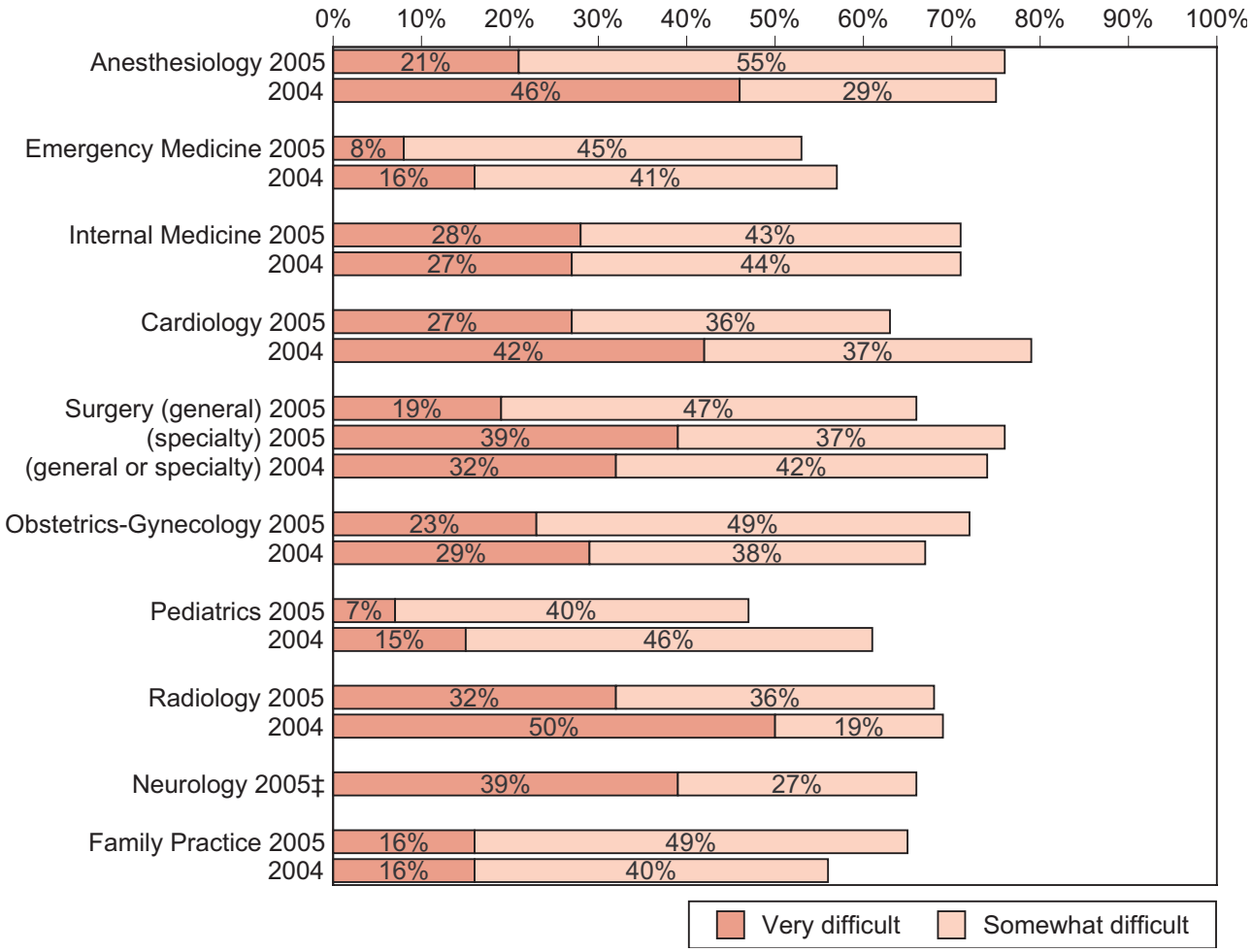
* Totals may not equal 100% because of rounding.
† Number of hospitals responding to this question.

Figure 6: Percentage of Washington's Hospitals Diverting Patients Due to Nursing Shortages: 2001, 2004, and 2005



* As reported in UW CHWS Working Paper #93 (Skillman et al., 2004).
† As reported in UW CHWS Working Paper #68 (Skillman et al., 2002).

Figure 7: Hospital's Level of Difficulty Finding Physicians in the Community to Credential to Work in their Hospital,* by Physician Type in 2005 and 2004†



* Among hospitals employing the physician type. Percentage of hospitals credentialing the physician type in 2005: anesthesiology 76%, emergency medicine 82%, internal medicine 85%, cardiology 76%, surgery (general) 91%, surgery (specialty) 81%, obstetrics-gynecology 83%, pediatrics 76%, radiology 85%, neurology 70%, family practice 95%.

† As reported in UW CHWS Working Paper #93 (Skillman et al., 2004).

‡ Data available for the first time in 2005.

DISCUSSION

The hospital occupations most difficult to recruit in 2005 are physical therapists, nuclear medicine technologists, occupational therapists, and ultrasound technologists. These occupations are among those with the longest vacancies. The percentage of hospitals reporting great difficulty recruiting physical therapists and occupational therapists continues to rise from previous years. These results are generally borne out by region, but there is some regional variation.

Hospital employment has grown over the past several years for most of the hospital occupations covered by this survey. Despite a drop in the staff nurse vacancy rate from 11 percent in 2001 to 6 percent in 2005, between 1,800 and 2,000 RNs have been needed to fill staff nurse vacancies each year. The number of employed staff nurses increased from 20,686 in 2001 to 30,127 in 2005—an increase much greater than that which was required to fill the reported vacancies. From 2001 to 2005, the demand for staff nurses to fill payroll positions, as measured by the number employed plus the number needed to fill vacancies, increased by 41 percent.

One of the most likely reasons for this employment increase is hospital growth and expansion. The Washington State population is growing and aging (State of Washington Office of Financial Management, 2004), and the state's hospitals appear to be responding to these increases. There has been a small increase in the number of acute care hospitals in Washington since 2001: there were 83 in 2001, 85 in 2002-3, and 88 in both 2004 and 2005. This change is the product of some mergers, de-mergers, and a few new hospital starts, but the increase in hospital numbers alone probably is not sufficient to cause the employment increases seen in the survey results. Some hospitals have expanded, as seen in the survey results. This was confirmed in comments from hospital administrators:

> We have doubled in size over the past five years.
>
> We have had to add a significant number of FTEs because our census has grown so rapidly.
>
> We added 50 inpatient beds and the staff expanded to support this.
>
> We…added staff—housewide FTE has grown significantly in last two years.
>
> …we have added FTEs from 2002 to 2005. Currently, we are at the largest FTE number in our history…

Another factor contributing to increases in staff employment is a shift from using contract employees to hiring more regular payroll positions. Contracting for employees can be expensive and cause staff dissatisfaction, among other problems. The survey found that while many hospitals continue to use contract employees, two-thirds or more are using the same amount of, or fewer, contract employees as they did in the prior year.

The hospital administrators' comments support the finding that there is a shift away from contracting among the state's hospitals, and this is likely to be a factor in the reported increase in employment of most hospital occupations. Examples of comments from hospitals that reduced the number of contracted staff are:

> We were able to eliminate contract budget from $2 million to $0.
>
> …Huge effort in nursing (BSN), radiology techs…and respiratory therapists to [reduce the contract employees].
>
> Big push to reduce agency staff and recruitment has been widely successful over the last two years.

Increases in employed staff that are due to increasing regular payroll positions instead of using contract staff do not represent actual hospital industry growth. Unfortunately, this survey cannot quantify the portion of the increase attributable to shifting contract employees to regular staff because the survey cannot identify the amount of contract employment for each occupation.

Growth in Washington's hospital sector appears to be keeping the demand for health care occupations high, even when vacancy rates for some jobs appear to be the same or lower than in past years. This growth, as well as the shift away from contract employees and other possible contributing factors, need to be considered when projecting future workforce supply and demand.

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Appendix A:

Questionnaire

Washington State Hospital Association

Hospital Workforce Survey

2005

Instructions

The Washington State Hospital Association and the Health Work Force Institute would appreciate your help in completing the 2005 hospital workforce survey. This is the fourth annual survey of hospital workforce needs. Your dedication, commitment, and hard work have resulted in great response rates on all previous surveys. This has provided us with reliable and valid results that we then use with the Legislature, local colleges, and workforce development councils across the state to encourage increases to health care training programs.

Please answer the following questions to the best of your ability. It will help to first review any 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) What was your hospital's average daily midnight census (acute care) last year? _____ patients

(A2) On average, how many people does your hospital have on its payroll (all professions in all units, including non-acute care)? _____ employees overall

(A3) On average, how many contract (not outsourced) employees does your hospital employ (all professions in all units, including non-acute care)? _____ # contract employees

(A4) What is the ZIP code of your acute care hospital? _____

(A5) What is the name of your acute care hospital? _____

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)	☐	☐	☐	☐	☐
(b) Advanced practice nurses	☐	☐	☐	☐	☐
(c) LPNs	☐	☐	☐	☐	☐
(d) Nursing assistants	☐	☐	☐	☐	☐
Laboratory Staff:					
(e) MT/CLS	☐	☐	☐	☐	☐
(f) MLT/CLT	☐	☐	☐	☐	☐
Radiology Staff:					
(g) Radiographer/radiology technologist	☐	☐	☐	☐	☐
(h) Specialized radiology technologist (e.g., MRI, CT)	☐	☐	☐	☐	☐
(i) Ultrasound technologist	☐	☐	☐	☐	☐
(j) Nuclear medicine technologist	☐	☐	☐	☐	☐
(k) Radiation therapy technologist	☐	☐	☐	☐	☐
Medical Records:					
(l) Technicians	☐	☐	☐	☐	☐
(m) Coders	☐	☐	☐	☐	☐
Pharmacy:					
(n) Licensed pharmacists	☐	☐	☐	☐	☐
(o) Pharmacy technicians	☐	☐	☐	☐	☐
Other:					
(p) Physician assistants	☐	☐	☐	☐	☐
(q) Dieticians	☐	☐	☐	☐	☐
(r) Physical therapists	☐	☐	☐	☐	☐
(s) Occupational therapists	☐	☐	☐	☐	☐
(t) Respiratory therapists	☐	☐	☐	☐	☐
(u) Surgical technologists	☐	☐	☐	☐	☐
Management:					
(v) Nurse managers/clinical directors	☐	☐	☐	☐	☐

(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.

	Employee Statistics: for each job category, indicate the requested statistic for regular/on-payroll staff.				
Acute Care Hospital Staff	**Not Applicable: we do not employ job category**	**# Persons Currently Employed[1]**	**# FTEs Currently Employed**	**# FTEs Vacant for which You're Currently Recruiting**	**If you have a vacancy, how many months have you been recruiting for the position that has been vacant longest?**
Nursing Staff:					
(a) Staff nurses (RNs)	☐				
(b) Advanced practice nurses	☐				
(c) LPNs	☐				
(d) Nursing assistants	☐				
Laboratory Staff:					
(e) MT/CLS	☐				
(f) MLT/CLT	☐				
Radiology Staff:					
(g) Radiographer/radiology technologist	☐				
(h) Specialized radiology technologist (e.g., MRI, CT)	☐				
(i) Ultrasound technologist	☐				
(j) Nuclear medicine technologist	☐				
(k) Radiation therapy technologist	☐				
Medical Records:					
(l) Technicians	☐				
(m) Coders	☐				
Pharmacy:					
(n) Licensed pharmacists	☐				
(o) Pharmacy technicians	☐				
Other:					
(p) Physician assistants	☐				
(q) Dieticians	☐				
(r) Physical therapists	☐				
(s) Occupational therapists	☐				
(t) Respiratory therapists	☐				
(u) Surgical technologists	☐				

[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.

(B3a) **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.

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

[1] FY = fiscal year.

(B3b) **Expenditures:**

What was your acute care hospital's total approximate expenditure on contract employees during the past fiscal year?

$_____ for contract employees

(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:**

	How difficult is it in your community to find the following types of physicians to credential for work in your hospital?				
Physician Type	**NA: we do not credential MD specialty**	**Not Difficult**	**Somewhat Difficult**	**Very Difficult**	**If "Very Difficult," is there a serious access problem in your community for people needing this specialty?**
(a) Anesthesiology	☐	☐	☐	☐ ➔	☐ Yes ☐ No
(b) Emergency medicine	☐	☐	☐	☐ ➔	☐ Yes ☐ No
(c) Internal medicine	☐	☐	☐	☐ ➔	☐ Yes ☐ No
(d) Cardiology	☐	☐	☐	☐ ➔	☐ Yes ☐ No
(e) Surgery—general	☐	☐	☐	☐ ➔	☐ Yes ☐ No
(f) Surgery—specialty	☐	☐	☐	☐ ➔	☐ Yes ☐ No
(g) Obstetrics-gynecology	☐	☐	☐	☐ ➔	☐ Yes ☐ No
(h) Pediatrics	☐	☐	☐	☐ ➔	☐ Yes ☐ No
(i) Radiology	☐	☐	☐	☐ ➔	☐ Yes ☐ No
(j) Neurology	☐	☐	☐	☐ ➔	☐ Yes ☐ No
(k) Other MD specialty (specify: _____)	☐	☐	☐	☐ ➔	☐ Yes ☐ No
(l) Family practice	☐	☐	☐	☐ ➔	☐ Yes ☐ No

C. Other Information

(C1) 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.*